ELECTRIC REFRIGERATION NEWS

The business newspaper of the electric refrigeration industry

Vol. I. No. 13

DETROIT, MICHIGAN, MARCH 30, 1927

PRICE FIVE CENTS

TOLEDO EDISON HAS U. S. SALES RECORD

Sold 560 Frigidaires in February-Claim World's Record for Single Month

The Toledo Edison Company claims the world's record for the greatest number of single compressors ever sold in any one city during a month's campaign, with a sale of 560 Frigidaire machines in Toledo during

the month of February.

This sales feat is all the more remarkable because it was made during the shortest and coldest month of the year.

Another unusual feature of the campaign was that the sales were made by the regular appliance salesmen and not by the Frieidaire sales department.

To H. F. (Sid) Corby, manager of the electric refrigeration department of the Toledo Edison Company goes most of the credit and glory. In his capacity as com-mander-in-chief of the 37 soldier-salesmen in their assault on Fort Quota (Toledo) he planned and executed a masterful sales campaign that broke all records for effectiveness and ultimate results.

The domestic electric division of the

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public service company was divided into six teams of six men each. These teams were captained by the six regular refrig-erator salesmen from Mr. Corby's depart-The salesmen were trained for six weeks prior to the opening of the campaign by Mr. Corby, assisted by representatives from the E. H. Walker Company, Toledo Frigidaire distributors and from the Frigi-daire Corporation at Dayton, Ohio.

Before the salesmen started their sales campaign, they were asked to call on a number of Frigidaire users in Toledo. "This was the most strategic move of the entire campaign," said Mr. Corby. "These appliance men talked to Frigidaire users and became enthusiastically sold on the real merits of the machine. No amount of sales talk, that we could have given them. would have been so effective."
Attractive window displays were used

during the campaign, and were changed each week. The "Oh Min!" window display attracted an unusual amount of attention A daily bulletin called the "Freez-O-Gram" was issued each day, giving the standings of the men and the funny experiences encountered by the salesmen.

The campaign created a great deal of individual rivalry and team spirit, and was the cause of much outside interest. Many telegrams were received from all over the country, and many Toledo business men came to the Toledo Edison building day after day to watch the bulletin board and the individual standings of the salesmen.

Prizes were offered as follows: First prize, \$100 and a \$50 wrist watch; second prize, \$75 and a \$10 hat; third prize, \$50 and a \$10 hat; fourth prize, \$25 and a \$10 The fifth, sixth, seventh, eighth, ninth and tenth prizes was a gold pencil with The winning captain prizes. In addition to name engraved. received \$100 in prizes. these prizes, \$250 in cash prizes were given by Mr. Corby as daily prizes.

Ted Eleston, with 66 sales contracts, won

the first prize. It is believed that this is a high record for any individual salesman to make in one month. He claims another record of having made at least one sale each day during the entire month. Louis Gramling, with 35 sales, won second prize; third prize went to Cooney Kutzli, with 25 sales; and fourth place to John with 23 sales.

At the end of the campaign a banquet was given to the salesmen at the Hotel Secor and the prizes were awarded at this time. E. H. Walker. of the E. H. Walker Company; C. L. Proctor, vice-president of Toledo Edison Company, and Mr Corby were the principal speakers at this

PORTSMOUTH STOVE FIRM MAKING CABINETS

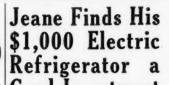
The Portsmouth Stove & Range Company, Portsmouth, Ohio, is increasing production on its line of all-porcelain cabinets which are especially designed for electric refrigeration. J. B. Knause, vice-president, is in charge of this development. The line of cabinets is being exhibited this week at the convention of the Ohio Valley State Furniture Dealers' Association, being held at the Neal House, Columbus, Ohio. Dealers from four states are attending the convention.

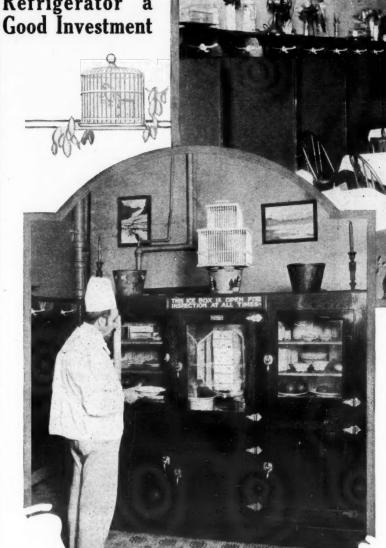
New Electric Absorption Machine

Master Domestic Refrigerating Co., Inc. 27 Broadway, Flushing, N. Y., is exhibiting a new absorption type machine operated by electricity. A. H. Strong is president of the company.

Jackie Coogan Uses Servel eatured on the front cover of the Servel Refrigograms, March issue. Jackie's home

is equipped with a Servel.





Jeane Van Alman has never lost any food in this electric refrigerator and says that there is no reason for losing anything after one knows how to operate it.

Jeane has conducted restaurants in Buenos Aires and Valparaiso before coming to Boulder, Colorado. He is famous for his barbaques, served in the Argentine Re-public. He conducts an extremely clean and interesting luncheonette. A sign on the electric refrigerator says: "This ice box is open for inspection at all times

In fact, everything is open to the inspection, even to the dishwashing.

dozen canary birds furnish music, while patrons are served with the choicest dishes which only Jeane knows how to pre-

Meats are always ripened before serving to the patron, and Jeane says that he can keep meat for 23 days in the electric refrigerator. The outfit, which is a Frigidaire commercial unit, was installed by the Public Service Company of Colorado.

SEES PROSPEROUS YEAR AHEAD FOR FRIGIDAIRE

G. Biechler, President, Returns From 5000 Mile Trip With **Optimistic Predictions**

The present year will be one of unparalleled prosperity, was the prediction of E. G. Biechler, president of the Frigidaire Corporation, on his return to Dayton last week, after a three weeks' visit to distibutors throughout the eastern and southern sections of the United States.

The field organization is getting away in fine shape," he said. "Business is well up to our expectations. In January our retail household and commercial sales were double those of January a year ago. Feb-ruary sales were twice those of last February. March sales will be 100 per cent ahead of March, 1926. If we hold the pace we have set, and there is every reason to believe we will, our retail sales in 1927

will reach a tremendous volume." Waiting for Mr. Biechler's attent come in during his absence. These orders totalled more than \$1,000,000 in business

"The business is growing at a rate to almost baffle conjecture. All over the country there is an increasing interest in electric refrigeration. The entire sales organization is enthused to the limit. I, personally saw the salesmen of the Boston district present the general manager, H. W. Newell, with a grand piano as an expression of their confidence in him and in the Frigidaire business.'

Steadily mounting demand for electric refrigeration in commercial lines of business is being evidenced in the growing vol-ume of sales, Mr. Biechler stated. This branch of the business will equal that of the household division in 1927, he said.

Keystone Moves to Beaver Falls

On March 15, 1927, the Keystone Refrigerating Corporation will move into its new offices and factory at Beaver Falls, Pennsylvania, after which date the Pitts-burgh office will be discontinued.

Woodbridge Addresses Adcrafters

C. King Woodbridge, president of the International Advertising Association and executive vice-president and general man-The home of Jackie Coogan, 673 South ager of the Electric Refrigeration Cor-Oxford Street, Los Angeles, Calif., is poration, addressed the Adcraft Club of poration, addressed the Adcraft Club of Detroit at the regular Friday luncheon, March 25, on the subject, "Maintaining Public Respect for Advertising."

White Frost to Market New Cabinet

The Home Products Corp., Jackson, Michigan, for twenty-five years manufac-turers of "White Frost" refrigerators, will New Unit Requires No Service and place a new all-steel, square type refrig-erator on the market April 1st. It will be especially designed for electric refrigera

LEONARD REFRIGERATOR FOUNDER DIES

Because the Leonard family maid spilled crock of warm lard in a refrigerator that could not be easily cleaned, a number of years ago, Mr. Leonard set out to improve the icebox and became one of the General Electric Company. This involves great manufacturers in that industry. A par ago the Electric Refrigeration Corporation purchased the Grand Rapids Refrigerator Company, of which he was requires attention of any kind from the an accumulation of 3,034 orders that had head, and it became the third unit of the housewife, and is guaranteed for two corporation, which includes the Nizer and years. The General Electric Company Kelvinator Corporations, Detroit. The Grand Rapids unit is now known as the its present stage of perfection. Leonard Refrigerator Company.

Mr. Leonard also was president of H. Leonard & Sons, Grand Rapids, wholesale dealers in glassware, house furnishings, by his father, and was vice-president of the Grand Rapids Fibre Cord Company.

Illinois Refrigerator Company Installs Enameling Plant

The Illinois Refrigerator Co., Morrison, Ill., recently installed a new porcelain enameling plant to supply the growing demand for porcelain-lined refrigerators.

F. L. Smith, vice-president and general manager, states: "There is a steadily increasing demand for porcelain-lined refrigerators, and in completing our enameling plant, we are equipped to sup-ply the best. The demand is in line with a tendency towards better boxes. Refrigerator manufacturers are continuously calling the attention of the housewife to the need of better refrigerators.

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t anneal eliminates all possibility of scale.
100 foot lengths. Write for Prices.
1431 Central Ave., Detroit, Mich. STAMLESS COPPER AND BRASS TUBING

GENERAL ELECTRIC HOLDS FIRST SALES CONFERENCE

Is Guaranteed for Two Years

The first national sales conference of the Electric Refrigeration Department of the General Electric Company was held March 15, 16 and 17, in the general offices. Hanna Building, Cleveland, Ohio.
The sales policy was outlined to the dis-

trict representatives by T. K. Quinn, general manager, and P. B. Zimmerman, sales Charles B. Leonard, 79 years old, a manager. The advertising and sales propioneer in the refrigerator industry, died at his home in Grand Rapids, Michigan, by several members of the respective departments

Electric refrigeration engineers from the Schenectady and Fort Wayne factories explained with models the new principle of electric refrigeration developed by the requires attention of have spent fifteen years in bringing it to

On Tuesday a dinner was held, at which Dr. C. A. Eaton, manager, industrial relations of the General Electric Company, was the principal speaker. Dr. Eaton brought crockery and lamps, which was founded out the wonderful opportunities of the General Electric refrigerator, backed with the prestige of the General Electric Company-the largest electrical manufacturing organization of the world.

Wednesday and Thursday were taken up with talks on credits and retail financing. warehousing and distribution, methods and forms, and other necessary information. An open session followed in which individual problems were brought up and given consideration.

The Electric Refrigeration Department of the General Electric Company was established January 1st of this year, with the main offices in the Hanna Building, Cleveland, Ohio. An enormous advertising program has been started.

Farmer's Wife Needs a Larger Refrigerator

A study of 400 farmhouses in Nebraska convinced Miss Greta Grey, research spe-cialist for the University of Nebraska, that the farmer's wife has altogether too little light in her rooms, especially her kitchen, and entirely inadequate refrigerator in. The incorporators are Joseph L. Hay arrangements for preserving fresh food in quantities. Electric light and large refrigMunn Rd., New Haven; and Charles I erators are recommended.

EVERITE PRODUCTS START PRODUCTION

F. C. Gieler, Dayton Inventor, Heads New Company Entering Electric Refrigeration Field

The Everite Products, Inc., 200 Davis avenue, Dayton, Ohio, after testing the "Everite" electric refrigeration unit since last August, are now prepared to market a line of cabinets ranging from five cubic feet content to the 20 cubic feet size in the domestic types and commercial sizes having one-fourth and one-half ton capacity

compressors.

F. C. Gieler, for the past nine years associated with the electric refrigeration industry and better known as the inventor and developer of the "Valley" electric refrigerator, is the president and general manager; B. K. Williamson is vice-president and sales manager, and J. A. Wharton is secretary and treasurer.

The Everite Company took over the lease of the Iceola Corporation at Dayton, June of last year, when the latter company moved to Indianapolis, and have recently added to their factory facilities.

All of the Everite cabinets will be of all metal construction, with porcelain interior The compressor is the reciprocal type and the machine is very quiet in operation. The refrigerant used is sodium dioxide. One of the features of the machine is sectional cooling unit. Additional sections can be added to each cooling unit.

WILL SELL NEW NORGE **MACHINE IN BOSTON**

The new Norge electric refrigerator will be marketed by the McCray Refrigerator Sales Corporation, 765 Boylston St., Boston, Mass., and Sales Manager Robert B. Lutes is already making arrangements to handle the New England distribution. The new Norge uses the rotary type compressor. The refrigerant is sulphur dioxide.

SECOND NEW YORK EDISON **ELECTRIC REFRIGERATION SHOW**

All the new styles in domestic electric refrigerators, from boxes built for small apartments to elaborate cabinets suitable for mansions, are exhibited in the second annual Electric Refrigeration Show, which opened Monday March 28, in the New York Edison Company's showroom at Fifteenth St. and Irving Place. Thirteen manufacturers, exhibiting more than fifty electric refrigerators, are demonstrating the year's developments, not only in cabinets, but in the apparatus used for operating the refrigerators and for their automatic control. The show is open free to the public from 9:00 to 6:00, every day during the entire week.

Well Known Electrical Men Organize as Marketing Counsellors

Announcement has been made of the organization of Goodwin, Nicholas & Morton, to render service as marketing counsellors in the electrical and allied industries. The offices of the new company with be 522 Fifth Avenue, New York.

William L. Goodwin, president, has from The Society for

recently resigned from The Society for Electric Development, after six years as its perating vice-president. Frederic Nicholas, vice-president and treasurer, was formerly general secretary of the Associated Manufacturers of Electrical Supplies and executive secretary of the Electrical Manufacturers Council. Walter Morton, until recently a member of the Sanborn Electric Company, Indianapolis, was for many years manager-secretary of the National Association of Electrical Contractors and Dealers, now the Association of Electragists, International.

Kelvinator Agent in New Haven **Increases Capital Stock**

The Kelvinator Refrigerating Company, New Haven, Conn., has filed notice of an increase in capital stock by adding 800 shares of stock with a par value of \$100. The increase, amounting to \$8,000, is divided into 400 shares of preferred stock and 400 shares of common stock.

New Haven Dealer Incorporates

The Thermo Corporation, New Haven, has incorporated to sell, install and render service for artificial ice machines. The company has an authorized capital of \$50,-000, and begins business with \$6,500 paid in. The incorporators are Joseph L. Hay-Munn Rd., New Haven; and Charles R. Vetefenille.

Urges Cooperation Between Power and Ice Industries

Presents the Subject from the Viewpoint of the Power Companies and the Mechanical Refrigerator Manufacturers in a Talk at Convention of the Southern Ice Exchange,

> By CHARLES COLLIER General Sales Manager of the Georgia Power Co., Atlanta, Ga.

When I was informed as to my subject, I tried to find an adequate definition for the word co-operation, and after searching around, finally hit upon Secretary Hoover's definition of what co-operation in trade associations and in modern business is. He defines co-operation as being divided into four activities: first, to stimulate sales; second, to reduce the divided into four activities: first, to stimulate sales; second, to reduce the same quality and quantity if he wants it, of advertising and sales; third, to raise the standard of advertising and of advertising copy as the biggest company in the land, with the same brains behind it, and the same selling punch. defines pretty thoroughly the whole subject, and I am going to try and elaborate on some of those four activities.

Before doing that, however, I wanted to touch on certain phases of the ice industry the upper middle class, the householder as I see it. Some rather eminent writer stated that intolerance, hatred and antagonism, when finally analyzed, were based upon fear. Eliminate the fear, and you eliminate the antagonism, and the intolerance. Now, there has been an underrunning current of fear in the ice industry in recent months, that the electric industry was taking the bread and butter away from Therefore, if I assume this party is right, that if we eliminate that fear, we eliminate at the same time that spirit of antagonism and intolerance, which, if it continues to grow, will serve to very materially handicap both the industry I represent and the industry that you represent.

No Cause for Fear

Frankly, I do not see that there is anything for either of us to fear from the Statistics usually tell a pretty fair story, and in an effort to try and bolster up my theory, I went to the Department of Commerce for certain statistics

According to the figures furnished, the amount of manufactured ice in this country has increased something over 400 per cent in the past twenty-one years, the 1925 product exceeding 40,000,000 tons. The consumption of ice per capita increased from 210 pounds in 1904 to 643 in 1925.

Now, it does not appeal to me that such an increase is indicative of anybody taking your business. It would seem that an increase of 400 per cent in the use of your commodity, which is approximately eight to twelve times the increase in population, indicates that you have a wide field to cultivate, and that you are meeting with reasonable, if not startling, success in your

According to this same bureau, there are 26,000,000 homes in America today, and of those, over 21,000,000 are absolutely without any apparatus or any piece of furniture or box in which ice could be used or which could be used for refrigeration purposes, even in the mid-summer

In other words, 65 per cent of the total population of the United States never, you might say, use ice. You have not sold them on the idea of refrigeration. Only 5,000,000 are using refrigeration in some form today. I agree with the statement that possibly a considerable percentage of those 26,000,000 homes are rural homes that cannot become regular consumers of ice, or any other refrigerant, but allowing for that, we still have a tremendous number of homes in America capable of using some form of refrigerant.

This was the status of the domestic refrigeration industry at the time manufacturers of the small machine came into the market with his for some ten years. They have made more or less progress, but it has only been in the last three or four years that there has been any concerted effort made to sell their product generally. They adopted for their sales methods a fundamental sound principle of merchandising, and that was to create a demand for that article which their machine could produce, namely, They have gone out with refrigeration. the idea of selling the idea of refrigeration first, and the means to obtain that refrigeration as a second consideration. Naturally as we all are more or less selfish, they hoped the prospect for refrigeration would utilize the machine which they would manufacture to produce the result for the final user of the product.

At the same time, for every one man they sell on refrigeration as a household necessity, they have created a potential market for the ice manufacturer among those whose pocketbook won't permit of the purchase of the mechanical refrigeration device, or among those who for one reason or another prefer not to be bothered, or not to be involved in the operation of a piece of machinery in their homes for the production of refrigeration which might be filled satisfactory with the use of artificial ice.

During the ten years in which these machines have been on the market, according to all the statistics we have on hand, less than three per cent of the poten-tial users of refrigeration have invested in mechanical or domestic refrigeration machines. This three per cent probably represents in so far as we can ascertain, the cost of advertising and sales: in selling

with a moderate income, living in reasonable comfort, who wishes to have at his command the leisure of his Sundays and holidays and who takes a particular pride in owning something a little different from what his neighbors own. If we say that two per cent of the users of refrigeration own such machines, we have only 720,000 such machines in operation today, leaving 98 per cent of the said potential customers of the ice industry as a whole to develop. Now, our idea on the subject of co-

operation follows pretty closely the definition that Mr. Hoover has given, and I want to talk about them in the order which he has mentioned them.

Promotion of Sales

We entered into a field that to us was We did not know anything about it. We do not know so very much yet, but we knew the problem was a selling prob-We realized that the problem was one which could be handled in the same way that any other merchandising prob-lem could be handled. That is, if we could create a legitimate, reasonable and sound demand for the product that our article could produce, we could come pretty close to solving the question of distribution, and it was approached solely from that angle, to stimulate sales through a desire for refrigeration.

Let me call attention to the fact that until the time that the central food industry began to agitate the question of mechanical refrigeration, the general public had little if any knowledge of the hygienic value of domestic refrigeration.

Therefore, it would appeal to me, your ndustry and this industry working today in peace and harmony to sell the idea of hygienic refrigeration, regardless of how the customer gets it (that is immaterial at the present time; whether he gets it through a centrally located plan in an apartment house, or whether he gets its through ice machines), if we can sell that idea to our home owners in this country and add a big percentage of the population now not using refrigeration to our refrigeration customer list, the sale of ice and the sale of domestic refrigeration machines, not only will grow, but my prediction is that it will grow beyond the wildest dreams of any member of industry present.

The fear that the central station industry is going to make inroads into your industry to the point where it will hurt is analogous to the fear of the gas business of forty years ago, which fear proved to be entirely fallacious. For the development of the gas business has exceeded the merchanical greatest expectations.

Forty years ago the majority of the gas ompanies' revenue came from gas lighting. Upon the development of the incandescent lamp the electrical industrial began to make inroads on the gas companies' rev-These inroads were a blessing in enue. disguise, for they stimulated the gas industry to seek new outlets for its productand the domestic cooking and water heating business was born. Today no gas company thinks of obtaining any large amount of revenue from lighting.

Then, a few years ago, the electric range again "threw a scare" into the gas industry, and it had visions of losing the domestic load, so it commenced to look about and discovered that the use of gas for commercial and industrial purposes offered an even greater field than the domestic, and every progressive gas company in this country today is engaged aggressively in the development of the industrial loads on their mains, and the prediction is made that it will only be a short while before this industrial load overshadows the present domestic load, and that the gas output will be greater than was even contemplated before.

Thus, you will see that for the gas industry electricity's competition was a blessing in disguise, if not the real salvation of the industry. Maybe the competition that the ice industry is meeting with from the domestic electric refrigerating machine will productive of similar activities and development of new fields by the ice industry to points undreamed of heretofore.

Cooperation Will Reduce Cost of Advertising and Sales

advertising we are paying it out for white space and the ability to plan the copy in such a manner as to appeal to our wouldbe patrons. No small company is equipped,

ters highly paid, highly trained advertising executives who can collaborate the necessary information, who have the necessary technical experience to prepare the copy in such a manner as to appeal to the public, and have arranged for a national advertising schedule in which the local advertising is tied with the national so that we get a complete harmony and co-operation all the way down the line. The smallest manufacturer of electric current can get the

Last year there was \$5,000,000 spent on such advertising. This year there will be \$10,000,000 spent. I want to submit to you now that that money was spent as much for your benefit as ours. It was selling the idea of refrigeration. If we can get this story of refrigeration to the undeveloped potential market, and they do not want my machine, they will buy your prod-uct. If we do not sell the idea of refrigeration, they won't buy either.

The Two Industries Should Work in Harmony

Now, it appeals to me that the ice industry and electric industry are in similar positions. The two central committees should join hands on an advertising campaign to educate the public on the value of refrigeration, and leave to the men in the field to each get their rightful share of the business.

Mr. Hoover says the idea of co-operation is to raise the standard of advertising. It appears to me that the standard of adver-

we are paying out money for labor, and in tising on the subject of ice and refrigeration is very sadly in need of being raised You gentlemen, as well as the electrical

industry, have got off on roads of advertising that have done neither you nor us nor can they become equipped to handle any good. The advertising has smacked of advertising intelligently. They haven't the trained personnel; they haven't the research ments have been made by both parties, and The electrical industry has recognized this fact and has established at headquarters highly paid, highly trained at the makeup. logical conclusion, have a central agency which is able to do it, which is so far removed from the local point of friction as to reflect only the main objects that we are trying to accomplish, and be free from the prejudice, free from the friction and free from the enmity that sometimes crops out between the local electric com pany and the local ice plant, and which inevitably gets reflected in the advertising?

If the ice industry can go into some sort of national advertising campaign, or place their advertising in the hands of the right agency, with the right point of view, we can eliminate that point of friction which is going to crop out in all local advertis ing, and such friction is not going to do either of us any good; it is not going to get you men any more business, nor it is not going to get us any more business.

I would like, in closing, to refer you to an important meeting of the ice manufac-turers and the Electric Refrigeration Council which met in Chicago in June of last year (a report of this meeting appeared in Ice and Refrigeration in July 1926), at which meeting a series of resolutions were adopted which deprecated the wasteful space devoted to unethical and unwarranted attacks by one industry upon the other, and expressed the belief that such practices are detrimental to the interests of both industries.

S-K-F Industries Move

S-K-F Industries, Inc., have moved their home office from 165 Broadway, New York, to 40 East Thirty-fourth Street,

New Advertising Manager of Copeland Products Inc.



ALBERT M. TAYLOR

Albert M. Taylor, who on March 1, 1927, became advertising manager of Copeland Products, Incorporated, 630 Lycaste Avenue, Detroit, Michigan, has a long and successful record in advertising and sales promotion work. For five years he was associated with the Buffalo, Rochester and Pittsburgh R. R. Company, which connection he severed to become assistant adver-tising manager of the H. H. Franklin Manufacturing Co., of Syracuse, N. Y., makers of Franklin motor cars. Later he became advertising and sales promotion manager of the company and was successful in both departments. Before taking charge of the advertising and sales promotion work as head of the department, he was in charge of the advertising for the Velie Motor Corporation at Moline, Ill.

The New All Porcelain Cabinets by Seeger for Electrical Refrigeration show a most decided advance in Convenience, Economy of Maintenance, Beauty of Design and Preservation of Food.

Among the many unique features of the New All Porcelain Cabinets by Seeger are:

Porcelain Vegetable Storage Compartment Porcelain Defrosting Pan-No Drain Removable Porcelain Baffle Wall

The Representatives of Electrical Refrigeration will be pleased to show and demonstrate the New All Porcelain Cabinets by Seeger in sizes to meet your requirements.

Cabinets by Seeger for use with ice and also for commercial purposes will continue to be shown by usual representatives

SEEGER REFRIGERATOR COMPANY STANDARD OF THE AMERICAN HOME

SATURDAY EVENING POST Full Page, April 2nd, 1927. Cabinets by Seeger are Built for any Standard Electric Refrigeration Unit. A Complete Line for Home, Hotel, Club and Restaurant.

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Man Who Carries a Tool Kit Todáy Destined to Work Rapidly to the Top

Rapid Growth of Electric Refrigeration Makes Large Opportunity for Men Who Thoroughly Understand Correct Installation and Service Methods

By J. F. Hendrickson, Servel Corporation, and C. B. Ryan, Jr., Welsbach Company

The keenest business minds of the country recognize in electric refrigeration a sure and sound promise of a most rapid industrial growth during the next ten or twenty years. No other new business, industry or profession opens up such possibilities to so many thousands.

It is always more difficult for any industry to discover and develop men capable of filling positions of high trust and heavy responsibility than it is to fill the positions near the bottom. This is even more true of electric refrigeration than it is of industry as a whole. In electric refrigeration there are fewer men between the average individual and the top.

Electric refrigeration has already developed a crying need for men trained as refrigeration is going to need, and it must have, additional thousands of skilled workers. Electric refrigeration is admittedly in its

Only a few years ago it was still in the development and experimental That stage has definitely been Like an infant, domestic refrigeration must either die or grow. No one can appraise the present demand for electric refrigeration without knowing absolutely and positively that it will not die.

Those who grow with it will be the men and the women-who appreciate the opportunities and the future possibilities that it opens up to them.

Progress Depends on Satisfactory Performance

The rapidity with which electric refrigwithin the next few years. Satisfactory annoyance, inconvenience and expense than can be repaid by many sales.

So well is electric refrigeration designed by the tenants. and built today that faulty performance is already an exception rather than a rule, but no man-made mechanisms will function forever without attention, care or repair. This is no more true of electric refrigerators than it is of any other mechanical product which is furthering the advance of modern civilization.

Most Complaints Due to Faulty Installation

If electric refrigerators are properly Faulty performance can be traced to faulty installation or improper service attention more often than it can to any other

The electric refrigeration industry will installation and service understand refrig-eration so thoroughly that they will be fully capable of discharging their responsibility wisely and well.

No group of men in the business world today have brighter possibilities for the future than those who enter electric refrigeration in overalls. The man who carries a tool kit today, and who applies himself industriously and intelligently, is destined to work rapidly to the top of the ladder.

Within the past three years electric inence that has astounded the business world as well as the general public. A few years ago electric refrigeration was an experiment. Today approximately three business tric apparatus may be attached. "The stated purpose of such apparatus is to warm food sent up to the individual partment from the hotel bitch and some content of the state of refrigeration has sprung into a promhundred and fifty thousand electric refrigerators are rendering satisfactory and economical service to American housewives. The plans that are being put into execution by the leading electric refrigerator manufacturers give a clear indication of the development and rapid growth that will be seen in the immediate future.

Enormous Market To Be Developed

In 1927, manufacturers plan to build placed in household service by the children rooms. To per industry up to date. Total production for the year will probably exceed 1,000,000 to violate the but machines. There are more than fifteen misdemeanor. placed in household service by the entire million American homes wired for elec-This number is increasing at the rate of more than one and a quarter million homes per year. Every one of these represents the possible sale of an electric

The initial cost of electric refrigeration as already brought it within the reach of families of moderate means. The cost of operating and maintaining electric refrigeration insures such decided economies that those of moderate means can no constitutes a misdemeanor. "The situation first came costly methods.

and practical mechanical experience that and practical mechanical experience that will be so imperatively needed throughout tificate contained a 'no cooking' clause. the refrigerating field.

ELECTRIC PANTRIES

New York Tenement House Law Invoked - Fine Apartment **Buildings Affected**

Following the test-case proceedings which were instituted by the Bureau of Buildings in New York City last fall, a new investigation has been started by the Bureau and the Tenement House Department to determine to what extent cooking is being done in apartment hotels in violation of the building code and the tenement house law. The survey is aimed primarily eration earns general recognition as an at a hundred or more of the modern and absolute necessity for families of moderate means will depend very largely upon the performance of machines installed within the next few years. Satisfactory performance will sell more machines than and other heating appliances may be all the salesmen in the country. A single dissatisfied user will cause more trouble, permit only the warming of food sent up from the hotel kitchens, but is being used, it is claimed, for cooking complete meals

Eighty apartment hotel owners are of either the building code or tenement construction were virtually unknown, house law are led against the building and had for its purpose to cut down owners. Between eighty and 100 violations have been filed to date, and the arrangements in old style tenements. number is increasing daily.

"Meanwhile, several measures have been introduced in the Legislature to window space, makes legislation to acexempt the buildings in question from complish this end unnecessary the cooking provisions of the building code and tenement house law. One of take a long and rapid step forward as these, introduced by Assemblyman Kahan of New York city, was rejected

Fashionable Apartment Hotels

"The property affected includes a majority of the new and fashionable apartment hotels in Fifth avenue and Park Lane. The individual apartments in these buildings, and in hundreds of other buildings of the same type throughout the five boroughs, are equipped with serving pantries. In the partries are wall place to which elec-

apartment from the hotel kitchen down stairs, but officials of the Bureau of Buildings and of the Tenement House Department declare that a common use of the wall plugs is to supply current for electric stoves upon which meals are cooked.

"The owners of buildings in which this contention holds good may be proceeded against in two ways. On the certificates for the buildings issued by the Bureau of Buildings it is set forth and sell more machines than have been that there shall be no cooking in the rooms. To permit cooking, therefore, is to violate the certificate and hence to violate the building code, constituting

"The other procedure is under the tenement house law, which provides that every building in which three or more families cook their meals must fulfill certain requirements of construction relative to exists and fire escapes. As the buildings in question make no pretense of fulfilling these requirements, the fact that their tenants engage in family cooking makes the owners liable to prosecution on this ground also. A vioover the refrigerating methods of the past lation of the tenement house law also

"The situation first came to light last fall when test-case proceedings were in-Intelligent men of vision do not have to be told that this will mean fortunes. Men in every branch of the industry will share this prosperity. The future looms no brighter for any of them than it does for those who are now getting the actual and practical mechanical experience that A Corner of the Kansas City Electric Refrigeration Show in Which Eight Dealers Exhibited to 22,725 Visitors



and far reaching effect.
"The Bureau of Buildings thereupon

started a general checkup of all apart-ment hotel buildings in the city.

Law Out of Date

"The building owners' contention is Eighty apartment hotel owners are afoul of the code, according to an article in the New York Times, February 26, which says: "In all cases where cooking is discovered, charges of violation of either the building code or tenement construction, were with all cases where cooking is discovered, charges of violation of either the building code or tenement construction, were with all cases where cooking in their apartments is unjust and unfair. It was framed twenty-five years ago, when electric apparatus and modern fireproof building

There is no more fire hazard in an "The double survey is designed to bring about a show-down in the apart-they point out, and the fact that their installed, and if they receive proper service attention, there will seldom be a justifiable complaint against their service. As the fable complaint against their service at half a billion dollars. to sanitation, the use of modern ven-tilating devices, together with ample

"OWN YOUR HOME SHOW" FOR TACOMA PLANNED

News From the Northwest Cities

An "Own-Your-Home Exposition" planned for Tacoma, Wash., the week of May 16, under the auspices of the Tacoma Real Estate Board and the chairmanship of John F. Lyon. Opportunity is offered for electric refrigeration interests to show how electric refrigeration is synonymous with pride and progress in the American home today. A committee has been appointed to handle all details of the modern home, in which all facilities for comfort and convenience will be represented.

Refrigeration Freight Rates Between Seattle and Hawaii Reduced

In order to further develop refrigeration service on liners plying between Seattle and Hawaii, lower freight rates on refrigeration cargo were placed in effect March 23, representing a reduction of about 40

Apartments Specify Frigidaire

Frigidaire cooling is called for in plans for two apartment houses for W. G. Clark at 57th Avenue S. W. and Alki Avenue, Seattle, to be completed this summer.

LITERATURE ISSUED BY NEW YORK EDISON CO.

Employment and Personnel

"Employment and Personnel" is the subject of a radio talk made recently by Arthur Williams, vice-president of the New York Edison Company, and which has been published in leaflet form.

Electricity—the Secret of Productivity The New York Edison Company has issued a leaflet containing a radio talk made by Arthur Williams, vice-president, enti-"Electricity-The Secret of Produc-

Thomas Alva Edison

The radio talk, "Thomas Alva Edison," made by Dr. John W. Lieb, vice-president and general manager of the New York Edison Company, has recently been pub-"The case was tried before Magis-lished in leaflet form.

In every home, the spotlight of publicity has been thrown on the refrigerator-

Five years ago people bought any kind of an ice box—as long as it was cheap. But times have changed. And any electric refrigeration dealer who has installed units in cheap boxes will tell you so.

Crysteel Cabinets are built especially for electric refrigeration. They are made to please the eye of the wife and the pocketbook of the husband. Because of their scientific construction, they hold cold longer, cut down the running time of the unit, and show definite savings in cost of operation.

Built to fit every unit made—and to help every unit keep up its reputation. Write for details of the Crysteel Franchise—a new idea in merchandising refrigerating cabinets.

BEJAMIN ELECTRIC MFG. CO. 120 S. Sangamon St., CHICAGO

BENJAMIN



CABINETS

Crysteel Cabinets are produced by a concern with a record of 25 years' reputable business dealings and ample financial responsibility. Open territory available to dealers who can meet the requirements of the Benjamin Crysteel organization.

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Liquid Receivers Perforated Sheet Metal

Air Cooled Condensers

Low Temperature Oils **Automatic Controls**

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ELECTRIC REFRIGERATION NEWS

The Business Newspaper of the Electric Refrigeration Industry

PUBLISHED EVERY TWO WEEKS BY BUSINESS NEWS PUBLISHING CO.

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MARCH 30, 1927

Ask Him!

A small booklet with the above title has been distributed by the ice companies in a number of communities in various parts of the country. At the recent meeting of the electric refrigeration committee of the National Electric Light Association, held in Chicago, information was requested regarding the affect of this propaganda. The consensus of opinion as a result of reports from various cities, is that the booklet has no adverse affect on electric refrigeration. It was generally agreed that nothing should be done to discourage the ice companies from distributing the booklet. In fact, salesmen have reported that it is helpful in stirring up interest in electric refrigeration, and that there is no difficulty in answering any of the questions which are suggested by the booklet.

It is pointed out that the salesman's greatest problem is to get an active "come back" from the prospect. Lack of interest is the principal obstacle which the salesmen have to overcome and when the prospect does "ask him" a lot of questions, even if such questions have been inspired maliciously, the salesman naturally rises to the occasion and the net result is a more complete education of the prospect on the merits of electric refrigeration.

The Central Station Viewpoint

M. E. Skinner, commercial manager of the Duquesne Light Company, Pittsburgh, Pa., writes as follows:

"I was very much interested in the editorial which appeared in the March 2 issue of Electric Refrigeration News, entitled "Automobile Men in the Electric Refrigeration Industry." No doubt it must be confusing, as you indicate, to a man who comes from the automobile industry, with its well-crystallized and well-defined practices to step into the seemingly chaotic condition in which the electric refrigeration industry now finds iself, and most particularly into the uncertain conditions with regard to the distribution of this new product.

"The comparison which you draw between the central station company's position with respect to the electric refrigerator and that of the Standard Oil Company with respect to the 'flivver' is not quite fair. The gasoline filling station operator does not have to supply a separate pump for each one of his patrons, nor does his Rolls Royce patron suffer from the idiosyncrasies of his 'flivver' trade in regard to their use of his product.

"Have you stopped to consider, however, whether there is any unanimous opinion among the electric refrigerator people as to the methods which they would like to have the central stations adopt with reference to their product? You will find as many opinions among the electric refrigerator manufacturers in regard to the proper relationship with central stations as you have uncovered among the central station companies.

"I think you will find that most of the central station companies are trying earnestly to find the medium and methods whereby they can most successfully promote the electric refrigeration idea in the broadest possible way and they would welcome the united expression of opinion from the manufacturers of the electric machines as to how they could best proceed. The electric machine manufacturer must remember that the broadest distribution of electric refrigerators in general does not always mean the broadest distribution for his particular and individual refrigerators."

The situation referred to by Mr. Skinner, namely, the lack of any unanimous opinion among the electric refrigerator people as to the methods which they would like to have the central stations adopt with reference to their product, represents one of the immediate problems of the industry. There is a definite need for an association which will provide a common meeting ground where all companies in the business, large and small, may discuss their common problems.

There is an opportunity to make more active use of the facilities of it, the balance of the week ebing devoted existing organizations such as the National Electrical Manufacturers' Association, the American Society of Refrigerating Engineers, the National Electric Light Association, the Society for Electrical Development and the Electric Refrigeration Council. It is to be regretted that the movement the country residents were interested to the extent of traveling some distance to started last year under the auspices of the two organizations last named, is not being carried forward on an enlarged scale during the present year.

One of the reasons for the launching of ELECTRIC REFRIGERATION NEWS was the obvious need for a medium which would serve as a clearing house for vital information and opinion about the problems of this meteoric young industry. We take this occasion to again repeat the invitation to make use of the columns of this paper for the expression of all serious and constructive views on the subject.

In brief, Mr. Skinner, you are right, absolutely right.

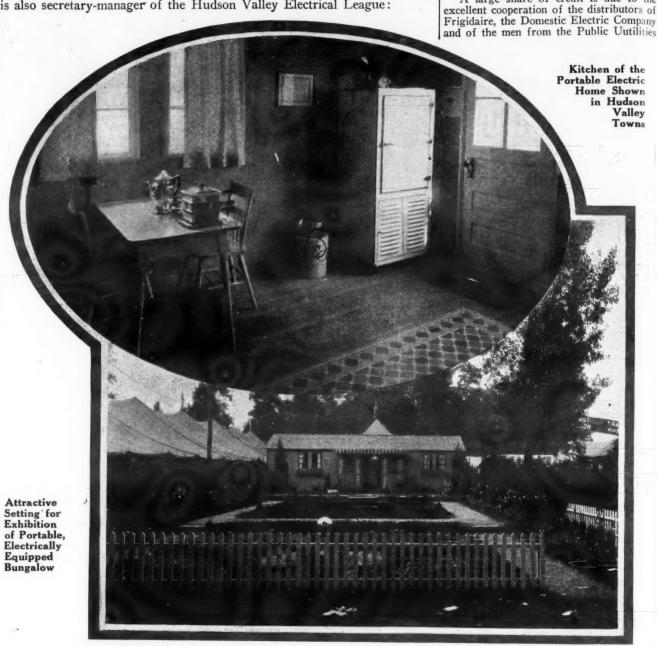
The Second Thousand

In the ninth issue of Electric Refrigeration News, February 2, it was announced that the first thousand subscribers had been enrolled. In this, the thirteenth issue, we are pleased to announce that the enrollment has now reached two thousand. Along with the coupons and checks have come many letters commenting upon the service of the paper in most enthusiastic terms. We are conscious of the interest in, and friendly feeling toward the publication and our obligation to justify its continuance.

Taking the Electric Home tric refrigeration was initiated throughout our system. Perhaps the rest of the story can best be told by records of the results. to 60,000 Rural Residents to August 7th, 1926, a quota of 200 units

Central Station Devises Original and Effective Method of Demonstrating Electric Refrigeration and Other Home Appliances

A portable home set up, furnished and completely equipped with electric service has been used with excellent results in numerous small communities served by the Central Hudson Gas & Electric Corp., of Poughkeepsie, N. Y. How the plan was originated and developed is indicated in the following statement by C. D. Munger, of the Trades Promotion Dept., who is also secretary-manager of the Hudson Valley Electrical League:



we had conducted in the cities of our territory had been very successful in raising the standards of wiring and increasing the demands for appliances in these localities, we found that it was extremely difficult to reach our rural residents. For this reason it seemed wise to devise some means of disseminating this information in our country districts and the idea of a porta-ble electric home came up and was devel-

contained a living room, bed room and display but by actual demonstrations in kitchen. The house was very attractive the rural territories." in looks and real livable, even though it

Electric Range and Refrigerator Attract

Most Attention was constructed in sections and trans-ported from place to place. It was exhibted for one week in each of twelve rural localities. One week was allowed for assembling, dismantling and moving. found that it took one day to dismantle the house and a similar period to assemble to the finishing touches. It is interesting to know that the number of visitors at each demonstration exceeded by far the total population of the village, proving that

"The furniture and draperies were loaned by local dealers under the supervision of our Home Service Department. While favorable comments were heard because of the attractiveness of the living room and bed room, the real enthusiasm was shown in the kitchen. While it is dif-ficult to accurately determine which appliance proved to be the most interesting, the following list shows the order in which inquiries were made:

1. Electric range.

Electric refrigerator. Electric clothes washer.

Electric dishwasher. Electric ironing machine. 6. Small appliances.

"This activity rpoved to be an excellent vehicle for the Home Service Department to reach our rural people and to show them the advantages of the electric applilist of people who might be interested in certain appliances to attend lectures and noons. In this way a tremendous amount Frigidaire.

eration. Cold desserts and beverages were prepared and served to those who attended territory during the entire campaign and the benefits of this type of refrigera- worked whole-heartedly and efficiently tion were explained in detail.

"Many of our visitors had never seen an electric refrigerator before, and some of the questions would seem ridiculous to the city-bred. The fact that so many who came to see the home and had never seen such appliances before proves to us that if they do not come to our salesrooms to see "The house was a bungalow built by the Such appliances, we at least can bring such McAvoy Homes, Inc., New York City, and an exhibit to them, not only through a

Electric refrigeration activities in the Hudson Valley territory are further explained in an article entitled "Our First further Year of Electric Refrigeration," by E. R. Mason, which appears in the Central Hudson Bulletin, extracts from which follow "Although electric refrigeration now holds an important place on our merchan-

dising program, at this time one year ago we had not begun the intensive promotion of this household and commercial necessity. Our Kingston district, where one salesman was assigned to this activity, was an exception.

"As soon as the decision was made to enter the electric refrigeration field in real earnest and Frigidaire was selected after a careful review of the various models on the market our first task was to organize for a sound market development.

"Electric refrigeration requires highly specialized selling. There are nearly five hundred combinations of Frigidaire from which to determine the one best suited to the customer's needs. Then the money involved in the sale of an electric refrigerator is considerably more than in most any of the other appliances sold by this company, which of course means greater sales resistance. When these points are recognized it is readily understood that the organization of an electric refrigeration sales force involves more time and greater training than is usually necessary in con-nection with other appliances. Careful ances. Invitations were sent to a selected preparation is also needed in the problem of installation, and until late last spring we had only one man in the whole system demonstrations to be held on certain after- who was experienced in the installation of

"While the demonstration homes which of interest was developed in electric refrig- Branch of the Frigidaire Corporation. The four salesmen who were assigned to our with our salesmen.

Our First Chapter in Results "About June 1st the active sale of elec-

"In our first campaign, from July 6th

was established, but the final results showed a total sale of 261 units in that period. In addition to the Frigidaire spe-

cialty salesmen, the regular appliance sales-

men participated in this campaign, making

a total of nineteen. Only eight of these

had received any previous training in sell-

ing electric refrigeration and in the major-

ity of cases this had been very brief. The

261 units were sold in the following pro-

portions by the different districts: Catskill, 37; Beacon, 21; Kingston, 60; Pough-keepsie, 88; Newburgh, 50; Saugerties, 5.

"A large share of credit is due to the

"Most of our electric refrigerator salesmen have now had the opportunity of attending some of the excellent sales schools heid by the distributors, and these schools have done much to fit our men for the task they have to accomplish. We ourselves are conducting sales meetings and sales schools twice each month for electric

Organized for 650 Sales in 1927

"During our first year of electric refrigeration, a completely been built up, and for 1927 we have set a quota of 650 units which we expect to surpass in actual results. Specializing in electric refrigeration we now have at headquarters in the commercial department supervisor of refrigeration sales and refrigerating engineer. There are at the present time nine Frigidaire salesmen-four in the Poughkeepsie and Beacon division, two in the Newburgh division, and two in the Kingston and Catskill division. There is a sufficiently large staff of electric service men trained in Frigidaire installations to give prompt and efficient service on every unit sold

"The scope of electric refrigeration has broadened so rapidly that we must be constantly alert to keep abreast of progress. According to a country-wide survey of results in merchandising electric refrigerators for the past year, compiled by the Electrical World, we stand well up in the list of public utility companies with similar number of consumers, our total being 463 units. We cannot afford to be satisfied until we reach the saturation point, number of sales last year to December 8th and, since we shall never reach that point, we have a real job ahead of us.

"Electric refrigeration as a means of extending the utility's service in the home and in business places, building up at the same time the gross revenue per customer, has commanded a great deal of attention from central station executives. While merchandising electric refrigerators requires more specialized effort than other appliances, the reward is well worth the effort in view of its value as a load builder."

Electric Refrigeration Engineers and Salesmen in Great Demand

Commonwealth Edison Company Building Up Trained Organization—Sales and Service Methods in Chicago Outlined

The following article on the "Status and Potentialities of Electric Refrigeration," by O. R. Hogue, head lighting agent, commonwealth Edison Co., Chicago, appears in the March issue of the National Electric Light Association Bulletin:

At the present time there are over 150 small electric refrigerators. New companies are springing up constantly. This condition is similar to the one the automobile industry went through some years back. There were over 150 manufacturers of automobiles; today I understand there are less than twenty. The present day condition invites keen competition, which means cutting manufacturers profit which is not good, as it has a tendency to reduce the quality, encourage building of refrigerators at the least possible cost and sacri-fice in efficiency. The manufacturers needs at the present time a fair amount of profit to be in a position to improve his oduct, furnish better material and give 100 per cent inspection.

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Market Possibilities

The Electrical World published an article in the October 30 issue, stating there are 14,533,000 wired homes. The total average of saturation was 1.78 per cent for the first seven months of 1926. Statements have been made that close to a half million refrigerators were sold during the year 1926. I understand the estimates for 1927 are two million refrigerators. It is possible these figures are optimistic. any event they are very interesting to the central station from the standpoint of income. Recent figures show the average residence customer uses from 35 to 50 kwhr. per month. The electric refrigerator will register from 40 to 50 kw-hr. per month. This will double the income from this class of business, and put the residence business in a preferred class.

Precautions have been taken by the central stations to the extent of referring manufacturers to a committee appointed by the National Electric Light Association who investigate refrigerator and machin-I recall three years ago when 1/8 hp. motor was standard. Through the efforts of the association this was changed to ½ hp. Other recommendations were made which will aid the manufacturers. I sincerely hope this policy will be continued with the hope that the association will be a help to all manufacturers of electric refrigerators in building up their product.

Must Advertise Extensively

In order for the manufacturer to introduce his product it is necessary for him to advertise extensively, both nationally and This is an expense which will add to the cost and must be paid out of profits. Central stations can materially help to introduce this article through the medium of newspapers, billboards, etc. They will probably spend during the next few years approximately 20 per cent of the gross sales for publicity. This will good business for the central station as it can be taken on without any material additions to present plant equipment, primary and secondary lines, transformers

Servicing is a most important subject to be given careful consideration. No refrigerator should be sold in any territory where there is no local 24 hours per day service. It is a fact that an electric refrigerator can be down for 4 or 5 hours, and still maintain its temperature. This is not e vital question, it is the custo we have to deal with. They do not understand electric refrigeration, they should not be asked to do their own servicing. In fact, the seller should insist that they furnish at least one year's service to edu-cate the customer. This class of service is expensive as it is necessary to build up an organization which can adequately handemand is very great at the present time for refrigerating engineers. For this reason it is necessary to develop men to handle this work. There should also be monthly inspections during the first year. It is possible the manufacturers will be

in a position to furnish repair parts and service similar to the service furnished by the automobile industry. Henry Ford has an excellent policy regarding question of repair parts and prices. As I understand they are all standard and the same prices

Many Selling Plans Being Used

The question of the best method to handle the selling of electrical refrigeration is one that all central station commercial managers are giving serious consideration. Questionnaires have been sent out and the other a large modern drug store. replies received. There are probably as many plans as there are companies. We to employ salesmen on a strictly commis-sion basis. We find the demand so great that very few salesmen will work on this basis. We have found it necessary to pay drawing accounts from \$100 to \$225 per month, depending upon the class of sales.

separate and distinct manufacturers of cial. The compensation is based on the margin of profit. For retailing individual units, 10 per cent. The minimum on wholesale should be 5 per cent. Commercial selling is more difficult, for this reason we figure 10 per cent should be paid in single lots; in quantities the commission is reduced. We have nearly half a hundred salesmen selling electric refrig-erators. Our quota for 1927 is 2,000 machines.

On account of the large first cost it is necessary to extend the payments over a given term. We are offering our customers 18 months to pay, 10 per cent down and the balance in equal monthly installments; 6 per cent is added for carrying charges.

In order to develop refrigeration to the highest efficiency, it will be necessary for manufacturers to receive a fair return for their merchandise. It will also be necessary for the central stations or others selling electric refrigerators to have a sufficient spread Profits will be absorbed in service furnished, publicity, etc.

The central station needs the business, the customers need the refrigerators and the manufacturer is anxious to increase his Refrigeration has come to stay output. and will stay because it is a necessary addition from the standpoint of preservation of foods, economy and cleanliness. It is entirely up to the manufacturer to furnish the public with the best refrigerator, and change models as seldom as possible.

Commonwealth Edison Experience Forty Retail Salesm

following notes on the experience of the Commonwealth Edison Company in marketing refrigerators may be of inter-

The most important educational campaign should be sponsored by the central station, that is, sell to individual customers a refrigerator. This can be handled in various ways. The Commonwealth Edison Company has a crew of salesmen, approximately forty, with two supervisors. The city of Chicago is divided into two parts, half of the organization operating in one half of the city, and the others in the other half. They meet in an outlying store location each morning and begin their daily work by going in groups and sys-tematically canvassing each and every house in their district. This canvassing is supported by two newspaper ads per week, approximately 150 lines on three col-umns. We have several attractive bill-We use street car cards, periodiboards. cals, programs, and our Edison Service News which goes to each and everyone of our customers at least once each month.

Four Wholesale Salesmen

We have four salesmen selling wholesale to large apartment buildings and hotels where the customers' demands are more than six units. Their duties are to call on architects, builders and owners.

Five Commercial Salesmen

We have five salesmen selling commercial, with one supervisor, who are doing a fair amount of business, two or three per week. The income as a rule is from to \$10 per month per customer. We find, of all the installations we have sold, we have yet to find a dissatisfied customer. Customers feel electric refrigeration is an asset which will save them considerable money in preserving foods and maintaining temperatures.

Demonstrations at Customer's Home We have one woman whose sole duty is to call on all users of electric refrigeration dle the present and future business. The and offer her services free for individuals demand is very great at the present time or in collective groups. If the customer wishes to give a party, our demonstrator will call and prepare frozen dainties with-out expense to the customer. We also fur-

HOTEL WINDOW USED TO DISPLAY REFRIGERATOR

An effective location for an isolated display has been found by the Harloff-Loprich Co., Madison, Wis., Kelvinator distributors. A window space, about eight feet by fourteen, has been rented in the Park Hotel. On one side of the Kelvinator window is the hotel entrance, and on

The Park Hotel, one of the most exclu sive in Madison, is located on Capitol have tried many plans and would prefer Square, the most fashionable square in the to employ salesmen on a strictly commiscity. Directly across the street is the state capitol building with its daily thousand visitors. At night the effect of the display is very striking for a blue light is used which makes the window visible from a great distance. According to officials of The selling has been divided into three the Harloff-Loprich store, a great many divisions, residence, wholesale (buildings inquiries have resulted from this display having over six apartments) and commer- in the hotel.

To Manufacture Refrigeration Accessories

M. Lassen, consulting engineer, Detroit, is now associated with the Goodnow & Blake Manufacturing Company, 3840 Beaver Street, Detroit, and will direct the manufacture of automatic controls, thermostats, shaft seals, floats and light stampings for the electric refrigerator and oil burner manufacturers. George J. Corte is president, Albert F. Corte, vice-president, and E. B. Goodnow, secretary-treasurer. Production will be limited for the next month or six weeks. Prior to this time

An Aggressive Refrigeration Campaign

"Cooperation of every employee of the Tyler office of the Texas Power & Light Company is credited with putting over one of the most successful seasons of electric efrigeration sales campaigns ever held in

the East Texas city.

"Carrying out a plan to keep electric refrigeration and the name of the refrigerator being sold before the public, a large truck was engaged to haul refrigerators from the warehouse to the office and thence to the customers' homes as sold, with signs across the truck reading "Electric Refrigerator Delivery."

"Three or four refrigerators were hauled at a time, the truck being driven several blocks out of the way in order that they might be carried through the main business section of the city to get the advertising attractive display room. He attracts prospenefit of an adequate display. Advertising pects to the display room through adverbenefit of an adequate display. Advertising was carried in local newspapers, which also ran news stories about the first carload of refrigerators received in Tyler.

"Window displays were illuminated with colored lights, and the displays changed every two or three days to maintain interpretation, permanent independence of outside ice sup-The refrigerators were uncrated on the sidewalk in front of the company's office, to attract attention, and a huge ban-ner, 'Ice by Wire,' was stretched across the street in front of the office."—Electrical South, February, 1927.

Topeka Dealers Stress Value of Newspaper Advertising and Aggressive Personal Selling

The Austin Company, Topeka, Kansas,

ence department of a prominent university the company has manufactured automotive demonstrated that lettuce, tomatoes, celery and other vegetables can be preserved perfectly for seven days and longer in a refrigerator equipped with Copeland electric refrigeration.

> In its advertising, the Austin Company is careful to emphasize economy and general desirability. It stresses the fact that every installation is 'backed" by the company's guarantee of satisfactory performance. The Austin Company finds housewives are most easily influenced through publicity which offers helpful hints and accurate facts regarding what electric refrigeration will accomplish in the aver-

This Dealer Favors "Well Balanced" Sales Policy

P. L. Reed, Frigidaire dealer at Topeka, finds newspaper advertising, attractive display and thorough demonstration should be used in correlation. Mr. Reed has an tising, then focuses their attention on the refrigerators is to describe, illustrate and outstanding features of his refrigerators. He gives special attention to demonstratply, and freedom from food spoilage. Mr. Reed finds the average customer desires to know all about the electric refrigerator, and he makes a point of satisfying customers regarding such salient considerations as operation, economy, service, etc.

This dealer stresses quality and economy Copeland dealer, employs newspaper adver- in his advertising; he also keeps prospects tising for educating housewives to the practical value of electric refrigeration.

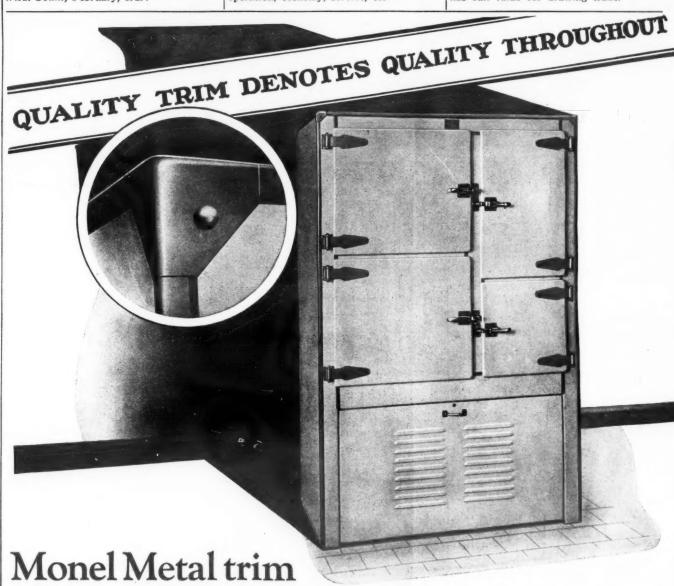
The following facts, recently presented, created much "buying interest":

"A test conducted by the domestic scines department of a remainder that a small first payment will permit the customer to profit from electric refrigeration is emphasized in his advertising. This "well balanced" sales policy is accelerating sales.

How Emahizer-Spielman Boost Refrigerator Sales

Aggressive publicity, coupled with personal solicitation, forms an effective combination for moving refrigerators in profitable volume, according to Emahizer. Spielman, Zerozone, dealers at Topeka. This firm is well qualified for introducing electric refrigerators, as it has featured refrigerators intensively for many years, and has been selling three carloads annually. They have started the 1927 refrigerator season with two carloads (ice and electric.)

"We have tested the value of different forms of publicity," states the advertising manager. "At present, newspaper publicity brings about fifty per cent of our new customers, while the other fifty per cent are recruited through displays and personal solicitation. Our expenditure for newspaper advertising runs about three per cent on sales. The main essential in advertising price the merchandise. In our advertising we use sufficient space to accurately describe the refrigerators; we find the right way to secure profitable results from newspaper publicity is to describe specific values, and to make each advertisement replete with helpful suggestions. We make a practice of backing up every claim made in our publicity; for patrons must be assured of efficient service before publicity has full value for drawing trade.



was adopted by to insure saleability and customer satisfaction

To meet the demands of 1927 buyers, refrigerators must look clean and attractive. Seeger is only one of many leading refrigerator manufacturers who have adopted Monel Metal trim because:

- 1. It has a permanently bright attractive surface -it dresses up the refrigerator.
- 2. Its corrosion-resistance makes it easy to clean and keep clean.
- 3. It is inherently rugged—hard to dent or scratch.
- 4. It has no coating to wear off.
- 5. Its per refrigerator. Its permanent ornamental value helps sell the
- Last, but not least: It is available in ample quan-6. tities in desired dimensions, shapes and forms.

IMPORTANT: Refrigerator buyers are recognizing a quality refrigerator by its Monel Metal trim.



THE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

Electric Refrigeration Patents

A Classified Record of All Electric Refrigeration Patents Issued Up to January 1, 1927—Third Installment

Compiled by H. R. Van Deventer

The United States Patent Office classifies all issued patents according to subject matter, and in accordance with an Official Classification. The patents pertaining to refrigeration are contained in one major

class, which is in turn divided into 178 sub-classes. These sub-classes include in addition to the iceless refrigeration machines and processes, other sub-classes pertaining to ice refrigerator boxes and ice buildings, cars, ships, and wagons, and also systems of air cooling such as are used in theaters and public buildings. There is also included

sub-classes on automatic control of the iceless machines. Following is the third installment of the complete list of all patents contained in the Official Sub-classes on iceless refrigeration machines and automatic control. The definitions appearing at the head of each sub-class are those officially given thereto by the United States Patent Office.

Sub Class 98 Refrigerators, Air Cooled, Expansion in Chamber, Expansion Motor

Air-cooled refrigerators having a compressor, a cooler, and an expansion motor from which the air expands into the refrigerating chamber.

from which the all expands	
ating chamber.	Mar. 22, 1870
101 108 F. Windhausen	Aug. 23, 1870
106 792 C. Flass	CICL. III, LOVE
D. A 603 Franz William	May II, Idio
1613 9714. 74. 11. 4.11.	Dec. It's
910 (185). G. G. F. F.	NOV. T. LOT
D., 8 055. L. A. WHILLIE	April 0, 1000
996 981. 1. 1	Sept. 1, too
231,886, L. Allen 244,236, E. Hill	Tuly 18, 1881
244,236, E. Hill 244,601, E. Hill	Tuly 19, 1881
244,601, E. Hill 244,602, E. Hill	Nov. 22, 1881
244,602, E. Hill 250,016, J. Tiffany	Dec. 6, 1881
250,016, J. Tiffany 250,586, N. Selfe	Ian. 24, 1882
959 766. 12, 11111	UCL. III, LOGE
265 627. O. Parker	Dec. 10, 1000
200 600. C. C. Farmer	lan. 10, 1001
901 914, S. H. Lilli	une 1, 1000
243 035. E. Kauneld	lune 22, 1000
344,006, C. C. Palmer 485,149, J. Buckner	Feb. 27, 1894
485,149, J. Buckner 515,585, E. Hill.	Dec. 28, 1897
515,585, E. Hill. 596,386, B. A. Smith.	Sept. 6, 1898
596,386, B. A. Smith 610,276, E. C. Nichols 7, Parkins & F. C. Web	orlan. 2, 1900
610,276, E. C. Nichols 640,320, A. T. Perkins & F. C. Web	May 1, 1900
640,320, A. T. Perkins & F. C. Wei 648,422, J. D. Moran	July 24, 1900
654 576, G. H. Manne E AV Tanne	11-
654 789 D. MCGIII &	111V 31, 1000
Walket	PeD. 13, 1001
668,540, O. P. Ostergren 674,822, G. H. Abrams	May 21, 1901 Oct. 13, 1903
674 822. (1. 11. /10/	UCL. In Anna
741,591, J. F. Place 855,768, F. J. Gilroy	Sept 26, 1916
855,768, F. J. Gilroy 1,199,486, E. F. Nauer 1,199,486, E. W. Tibbetts	Luly 1, 1924
1.199.486, E. F. Nauer 1.499.489, R. W. Tibbetts	Aug. 25, 1925
1,499,489, R. W. Tibbetts 1,550,961, W. J. Hawkins	Tan. 5, 1926
1,550,961, W. J. Hawkins 1,568,230, L. Lundgaard	
1 chickers	

Sub Class 99 Refrigerators, Surface Cooler

Refrigerators cooled by a fluid passin

Refrigerators cooled by a fluid passing through a conduit or casing, which transfers through a conduit or casing which transfers the refrigerator to the fluid.	1,8
through a conduit or casing, which transfer	1,4
through a conduit or casing, with fluid. the heat of the refrigerator to the fluid.	1,
46 505 D. E. Somes Feb. 28, 1865	1
46.596, D. E. Somes	1.
51,237, D. E. Somes Nov. 12, 1866	1,
70,909, D. E. Solles	1 1.
101,876, D. Muhl	8 1
184,797, G. C. Quezada June 26, 187	7 1.
192,497, E. Fixary	1 1.
235,870, E. A. Hay 237, 236 W. P. Bigelow	1 1
244 301, T. L. Rankin	1 1
247,772, W. T. Lyons Jan. 17, 188	2 1
252,553, 1. S. Very April 11, 188	2 1
256,350, C. G. Mayer Oct. 17, 188	32 1
266,160, D. D. Johnson Feb. 20, 189	53 1
272.654, H. D. Cogswell May 15, 180	83 1
277, 804, H. Scott Mills Mag. 21, 18	84
295,110. J. Burke	84
302.443, J. J. Suckert Nov. 4, 18	85
307.484, P. J. McCh April 26, 16	85
316,300, D. Hennessy July 7, 18	85
321,602, D. Hennessy Mar. 9, 18	86
337,394, I. Goodale	886
345,550, A. J. Chase Aug. 28, 18	388
388,722, J. Ring	388
392.917. J. F. Hanrahan. Mar. 5, 13	889
399,207, B. N. J. Jacobs Mar. 1, 1	892
470,167, C. F. Paige July 12, 1	892
478,898, J. T. Westwood	892
486,655, L. C. Willer June 20, 1	893
504,986, J. Kurtz. Jan. 23, 1	894
513,407, A. A. Miller & I. E. DuBois, May 29,	894
520,442, C. S. Miller S. July 24,	1894
523,412, 1. Suphal April 16,	1895
537,590, M. Wanner Feb. 16,	1897
577,327, W. F. Singer June 0,	1899
626,389, I. T. Ludlow Oct. 10,	1899
634,702, W. S. Shaw. Mar. 13,	1900
645,210, H. B. Murdock	1901
670,443, W. Burns	200
679,526, W. B. Carnay & L. July 30,	1901
SchwarzNov. 19.	190
687,101, C. Zimidt & T. J. Ryan Nov. 20,	190
710.791, L. Michel & F. Rade-	100
728,702, A. F. George & May 19.	190
macher	190
800.427, A. Javey Dec. 22	190
907,559, C. S. Bavier	190
938,554, E. Carpentet Jan. 11	191
945,778, J. Faget Sept. 27	. 191
971,162, E. T. Winkler Feb. 28	, 19
985,620, J. B. Monette. Dec. 12	19
1 015 957, R. M. Hunter Aug. 20), 19
1,036,323, E. E. Perkins Dec. 31	1, 19
1,048,800, A. E. Bosse	2 10
1,105,783, H. M. Kjaersgaard Mar.	5, 19
1.143,243, L. H. Vogel & J. Burrows, June 1	2, 19
1,156,252, C. G. Simon July 1	1, 19
1,422,628, J. C. Shaw	3. 19
1,450,864, J. W. Peck, Jr. Sept. 2	22, 1
Refrigerators cooled by a fluid passist through a conduit or casing, which transfers the heat of the refrigerator to the fluid. 46.595, D. E. Somes. Feb. 28, 1865, 46,596, D. E. Somes. Feb. 28, 1865, 51,237, D. E. Somes. Feb. 28, 1866, 70,909, D. E. Somes. Nov. 22, 1866, 70,909, D. E. Somes. Nov. 22, 1866, 70,909, D. E. Somes. Nov. 22, 1867, 70,909, D. E. Somes. Nov. 22, 1867, 70,909, D. E. Somes. Nov. 28, 187, 184, 797, G. C. Quezada. Jan. 6, 187, 184, 797, G. C. Quezada. June. 26, 187, 192, 497, E. Fixary. Dec. 28, 188, 237, 236, W. P. Bigelow. July 12, 188, 237, 236, W. P. Bigelow. July 12, 188, 244, 301, T. L. Rankin. Oct. 4, 188, 244, 301, T. L. Rankin. Oct. 4, 188, 247, 772, W. T. Lyons. Jan. 17, 188, 252, 553, T. S. Very. April 4, 188, 252, 553, T. S. Very. April 4, 188, 226, 353, C. G. Mayer. Oct. 17, 184, 272, 654, H. D. Cogswell. May 15, 18, 272, 654, H. D. Cogswell. May 15, 18, 295, 110, J. Burke. Jan. 14, 18, 295, 110, J. Burke. Jan. 17, 18, 302, 443, J. I. Suckert. Nov. 4, 18, 307, 484, P. J. McDonald. April 28, 18, 316, 900, T. Krausch. July 7, 18, 321, 601, D. Hennessy. July 7, 18, 321, 601, D. Hennessy. July 7, 18, 313, 399, 207, L. Perkins. July 27, 16, 337, 394, J. Goodale. July 11, 13, 134, 550, C. F. Smith. July 17, 18, 314, 550, C. F. Smith. July 17, 18, 314, 570, C. F. Smith. July 27, 18, 388, 722, J. Ring. 392, 917, J. F. Hanrahan. Mar. 5, 146, 788, B. N. J. Jacobs. Mar. 1, 147, 898, J. T. Westwood. Nov. 22, 148, 6655, L. C. Williamson. June 20, 146, 674, 634, Nov. 18, 19, 204, 204, 206, 206, 206, 207, 207, 207, 207, 207, 207, 207, 207	

1,156,252, C. G. Simon 1,422,628, J. C. Shaw 1,436,884, J. B. Lacy 1,450,864, J. W. Peck, Jr. 1,554,346, G. T. Haglund Sub Class 101. Refrigerators, Surface Cooler, Liquid Circuit

Refrigerators cooled by means of a surface cooler arranged in circuit with a liquid

cooler arranged in circuit	
46,594, D. E. Somes	Feb. 28, 18
46.594. D. E. Somes	Feb. 13, 18
213,530, B. Rose 215,272, B. W. Gillett	May 13, 1
219,131. J. A. Whitney	Feb. 17. 1
220,422, T. L. Rankin 224,521, T. C. Eastman	Ton 4. 1
224,521, T. C. Eastman 236,339, K. Knott	Jan.
230,000, 10 mm 100 mm, 1 hours	

	343, D. C. Sanford 004, P. H. Bate 0020, G. W. Beitzler 879, T. H. Day 218, T. L. Larkin 133, J. C. Rossi 724, T. C. Eastman 221, W. D. Graut 292, T. L. Rankin 292, T. L. Rankin 292, T. L. Rankin 298, T. S. Sander 298, T. L. Sander 298, T. L. Sander 298, T. L. Sander 298, T. L. Rankin 299, T. L. Rankin 298, T. L. Sander 298, T. L. Rankin 298, T. S. Sander 298, T. S. Sander 298, T. Sander 298, T. S. Sander 298, T. Sander 299, T. Sander 29	
-	- ' - 1	Mar. 29, 1881
239.	343, D. C. Santord	April 12, 1881
240.	004, P. H. Bate	Sept. 13, 1881
247.	020, G. W. Beitzier	Oct. 2, 1880
285,	879, T. H. Day	April 1, 1884
296.	218, T. L. Larkin.	June 10, 1884
300	133, J. C. Rossi.	Oct. 21, 1884
306	,724, T. C. Eastman,	Dec. 10, 1885
309	221. W. D. Glade	April 21, 1885
316	,292, 1. L. Raman & Jacob Stuber	Aug. 11, 1886
324	278, Johann & Jorth	May 15, 1887
341	906, F. Halliswood	Nov. 10, 1890
373	701 M W Dewey	April 25, 1890
426	700 F Armstrong	April 21 1891
431	oze W S Parker	Nov 1 1892
400	217 C H. Parshall	Mar 5, 1895
1 100	175 C. W. Schwartz, Jr	July 25, 1899
533	341 M. Cooper, Jr	Oct. 31, 1899
629	5 882. H. Torrance, Jr	Mar. 6, 1900
1 63	4 965. C. W. Blagg	April 17, 1900
1 Re.1	1. 822, M. Cooper, Jr	Nov. 27, 1900
1 66	2 632. J. H. Vail	April 23, 1901
1 67	2.504, J. Wolfensperger	Nov. 12, 1901
9 68	6.630, J. O. Morris	Aug. 12, 1902
2 68 2 70	6 511. E. Barrath	July 28, 1903
3 73	1 975. A. Siebert	Oct. 18, 1904
34 77	2 656. H. J. Gerner	Feb. 6, 1906
86 81	1 596, V. Thansing W	C
86 8	18 595. P. Mandeville & W.	Mar. 26, 1907
92	Walker	Aug. 11, 1908
94 8	95.700, H. Torrance, Jr	Aug. 11, 1908
97 8	95.962, C. Chase	Feb. 16, 1909
98 9	12.868, G. Mey	May 4, 1909
00 9	20.557, G. Fleming.	Mar. 15, 1910
00 9	52.040, E. T. W. Hall	July 12, 1910
00 9	64.041, J. B. Monette	Oct. 26, 1910
9	73,548, B. J. Noyes	Sept. 24, 1912
000 1,0	39,655, G. F. Dickson	Oct. 8, 1912
001 1.0	140,739, J. L. Nilsson	May 13, 191
01 1.0	061,765, E. J. Market	Oct. 7, 191
003 1.0	975,126, J. J. Schrade	Feb. 24, 191
907 1.9	088,130, J. Cuming.	April 20, 191
916 1.	095,008, S. Mackin.	June 2, 191
924 1.	098,904, C. A. Huse	Oct. 27, 191
925 1.	115,398, T. F. Cobler	Nov. 10, 191
926 1.	116,802, I. C. Richert	Nov. 24, 191
11,	118,585, J. A. Michel	Tan 18 191
1.	155,305, D. G. Richert	Tune 18 191
11	168,743, J. King	Sept 14, 192
1	269,710, V R Ross	Aug 23 199
ing	332,332, P. W. Petersen	July 11, 195
fers 1	100 570 W B. Handy & J. J. P	Feb 6, 19
leis	414 589 L. G. Copeman	Mar. 6, 19
- 1	147 601 L. Penwell	April 10, 19
1865 1	451 566, A. H. Ehrlich	Dec. 4, 19
1865	476 546. I. R. Reologle	Dec. 18, 19
1865	478 120, F. M. Hill	Dec. 18, 19
1867	478 121. F. M. Hill	Ian. 1, 19
1870	479.551, G. Labolle	Feb. 12, 19
1874	1 483 593, L. Penwell	Feb. 26, 19
1876	1 484 886, F. M. Hill	Aug. 26, 19
1877	1.506,103, W. Wishart, et al.	Sept. 23, 19
1880	1 509.812, J. R. Replogie, et al.	May 5, 1
1881	1 536,394, J. E. Johnston.	June 2, 1
1881	1.540,158, J. F. Barghausen	June 23, 1
1881	1.542,993, J. E. Dungan	June 23, 1
1882	1.543,027, L. Penwell	June 23, 1
1882	1,543,040, G. B. Walker	July 28, 1
1882	1,547,258, J. W. Newton	Aug. 11, 1
1882	1,549,335, C. C. Spreen	Sept. 8, 1
1883	1,552,949, W. J. Flatten	Oct. 27,
1883	1,558,619, L. D. Jolles.	Dec. 1,
1883	1,563,577, T. P. Lobiaw.	May 18,
1884	1,585,016, E. A. Burtows.	June 15,
1884	1,589,064, R. W. Gearnare.	Dec. 14,
1884	1,610,626, J. Smith	
1885	- 4 694	102
1885	Sub Class	102

Sub Class 102 Refrigerators, Surface Cooler, Air-Pump Circuit

Surface cooled refrigerators having means

Surface cooled refrigerators having means	311
Surface cooled refrigerators having means or circulating the air of the refrigerator by	324
	337
n air pump. April 9, 1861 31,996, A. Peteler. Feb. 28, 1865 5, 1870	$\frac{346}{420}$
31,996, A. Peteler. Feb. 28, 1865 46,595, D. E. Somes. Jan. 25, 1870 1871 J. F. Somes. Jan. 27, 1871	466
31,905, D. E. Somes Jan. 25, 1870 99,254, D. E. Somes Mar. 14, 1871 112,654, A. B. Tripler Aug. 19, 1873 142,046, L. Schulze April 20, 1875	504
112 654, A. B. Tripler Aug. 19, 1873	601
99,294 D. Mail 19, 1873 112,654 A. B. Tripler Aug. 19, 1873 142,046, L. Schulze April 20, 1875 162,432 A. H. Tait Mar. 28, 1876	643
162,432, A. H. Tait Mar. 28, 1876 175,488, K. Knott Oct. 17, 1876	649
175,468, K. Knott	70
102 234 T. Cook	70
142,046, L. Schulzer, April 20, 1875 162,432, A. H. Tait. Mar. 28, 1876 175,468, K. Knott. Oct. 17, 1876 183,406, R. H. Lucas. June 19, 1877 192,234, T. Cook. Jan. 1, 1878 198,830, A. Albertson. Feb. 26, 1878 Re. 8,109, J. L. Alberger. Dec. 17, 1878 210,979, J. A. Whitney. Sept. 2, 1879	85 87
198.830, A. Alberger Feb. 26, 1972 Re. 8,109, J. L. Alberger Dec. 17, 1878 210,979, J. A. Whitney Sept. 2, 1879 219,131, J. A. Whitney Sept. 2, 1879 227,874, W. M. Babbott & D. Smith, May 25, 1880 227,874, W. M. Babbott & D. Smith, May 25, 1880	88
25 1880	89
227, 874, W. M. Babbott & D. Smith. May 26, 227, 874, W. M. Babbott & D. Smith. May 26, 229, 750, R. Portner & B. E. Eils. July 6, 1880, 230,615, C. W. Cooper Jan. 4, 1881, 1881	92
	1,44
230,615, C. W. Cooper Jan. 4, 1881 236,339, K. Knott Feb. 1, 1881	1.48
236,339, K. Knott Feb. 1, 1881 237,312, G. E. Noves April 12, 1881 1881	1.49
	1,5
237, 312, G. E. Noyes April 12, 1881 240,004, P. H. Bate Nov. 8, 1881 249,433, J. A. Whitney Dec. 6, 1881 250,586, N. Celfe Dec. 25, 1883	1,5
250,586, N. Selle Dec. 25, 1883	1,5
290,794, C. C. Palmer Sept. 16, 1884	
Re 10.522, C. P. G. Linde. Oct. 21, 1884	1
306,725, T. C. Eastman	1 .
330,044, C. C. Palmer	
330,045, C. C. Palmer Dec. 8, 1885	1:-
331,928, C. WeinspachJune 1, 1886	ic
240, 433, J. A. Whitney Dec. 6, 1881 250, 586, N. Selfe Dec. 25, 1883 290, 794, C. C. Palmer Dec. 25, 1883 290, 795, C. C. Palmer Oct. 21, 1884 306, 725, T. C. Eastman Nov. 10, 1885 330, 044, C. C. Palmer Nov. 10, 1885 330, 045, C. C. Palmer Nov. 10, 1885 330, 046, C. C. Palmer Nov. 10, 1885 331, 928, C. Weinspach June 1, 1886 341, 035, E. Kauffeld Mar. 31, 1891 449, 615, S. B. Clemmens May 16, 1893 497, 595, J. McIntyre Dec. 28, 1897 596, 386, B. A. Smith, April 5, 1896 601, 716, J. Sedlacek July 18, 1896	
449,615, S. B. Cleman May 16, 1887	
596 386, B. A. Smith, April 5, 1898	3
601,716, J. Sedlacek July 18, 1899	
629,143, K. Will	0
497,595, J. McIntyre. Dec. 28, 1897, 596,386, B. A. Smith. April 5, 1896, 506, 1716, J. Sedlacek. July 18, 1896, 629,143, K. Wilt. Nov. 21, 1896, 637,383, T. H. Gore. Feb. 13, 1906, 643,269, J. C. Kitton. Mar. 6, 190, 644,847, M. Cooper. Feb. 10, 190, 668,303, L. K. Bohm. June 4, 190	1
6 644,847, M. Cooper Feb. 10, 190 5 668,033, L. K. Bohm June 4, 190 6 671 A Peter April 15, 190	2
668,033, L. K. Bohm. June 4, 190 675,671, A. Peter April 15, 190 675,671, A. Peter April 15, 190	1
2 675,671, A. Peter	2
2 697,679, A. Siebert Aug. 5, 190 3 706,327, J. E. Lawrence Oct. 7, 190	12
5 710,623, J. V. Skoglund)2
5 68,033, L. K. Bolini June 4, 190 2 675,671, A. Peter April 15, 190 2 697,679, A. Siebert Aug. 5, 190 3 706,327, J. E. Lawrence Oct. 7, 196 5 710,623, J. V. Skoglund Dec. 16, 100 716,091, C. C. Palmer May 5, 190 727,432, A. Peter April 19, 190	04
727,432, A. Peter Magniez April 15, 190	07
852.543, H. E. Deckebach June 4, 19	07
e 855,768, F. J. Gilroy Sept. 3, 19	00
d 865,172, C. F. Edsou	11
940,550, C. M. Gay	12
65 1.044.310, M. Walnit Dec. 3, 19	12
65 1.044.310, M. Kind Dec July 22, 19 72 1.046.307, M. Kind July 22, 19	113
73 1,008,212, K. I Schrade April 28 19	114
74 1,075,120, J. Mackin April 25, 126 1,095,008, S. Mackin Sept. 1, 19	914
76 1,095,008, S. Bretney Oct. 24, 1977 1,109,396, E. Bretney Oct. 24, 1977 1,009,396, L. Usher Mar. 8, 19	916
1,202,250, L. Usher	921
77 1,109,396, B. Brettey Oct. 24, 1, 1, 1, 1, 1, 202,250, L. Usher May 16, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	924
779 1.471,169, E. Jannse. May 10, 1 779 1.416,492, J. Morawski. Nov. 11, 1 7879 1.515,546, M. W. Browne April 7, 1 7,515,546, M. W. Browne April 7, 1 7, 1 7, 1 7, 1 7, 1 7, 1 7, 1 7, 1	925
1,532,936, J. G. Peck	926
880 1,570,811, E. A. WIRINSON. Feb. 10,	320

Sub Class 103 Refrigerators, Surface Cooler, Condenser

Surface cooled refrigerators or chambers

Surface cooled refrigerators or chambers in which there is a surface cooler provided with means for removing the condensation collected from the air in the chamber.

14,510, A. S. Lyman Mar. 25, 1855
Re. 2,036, B. M. Nyce July 25, 1865
50,790, S. R. Beckwith Aug. 14, 1866
57,670, J. A. Boyer April 2, 1865
67,670, J. A. Boyer April 2, 1866
67,670, J. A. Boyer April 2, 1867
63,405, T. S. C. Lowe Jan. 14, 1866
80,080, J. Martin July 21, 1868
80,080, J. Martin July 21, 1868
97,264, L. Angster July 21, 1868
97,264, L. Angster July 21, 1868
97,264, L. Angster July 21, 1868
104,814, L. Angster June 28, 1870
104,814, L. Angster June 27, 1871
177,27, B. F. Smith Feb. 24, 1874
Re. 5,772, B. M. Nyce Aug. 1, 1871
175,5068, W. Cleveland Sept. 7, 1875
169,903, M. Harris Dec. 7, 1875
170,730, M. Harris Dec. 7, 1875
170,730, M. Harris Dec. 7, 1875
170,744, L. K. Fuller Dec. 28, 1875
171,591, A. Thoma Jan. 18, 1876 Re. 4.437, E. D. Brainard. June 27, 1871
117.572, B. F. Smith . Aug. 1, 1871
117.572, B. F. Smith . Feb. 24, 1874
154,205, G. Wood . Sept. 15, 1874
155,068, W. Cleveland . Sept. 15, 1874
167,464, H. G. Gleyre . Nov. 16, 1875
169,903, M. Harris . Dec. 7, 1875
170,844, L. K. Fuller . Dec. 7, 1875
171,591, A. Thoma . Jan. 18, 1876
171,591, A. Thoma . Jan. 18, 1876
182,126, M. Moon . Feb. 27, 1877
187,935, F. A. Thompson . June 19, 1877
182,234, T. Cook . Mar. 19, 1878
182,226, M. Mood . Feb. 27, 1877
192,234, T. Cook . Mar. 19, 1878
182,259, H. & J. Bell & J. Coleman . April 16, 1878
202,509, H. & J. Bell & J. Coleman . April 16, 1878
229,750, R. Portner & B. E. J. Elis . July 6, 1880
221,168, E. & B. Holmes . Nov. 23, 1880
234,788, K. Knott . Jr . Jan. 4, 1881
237,236, W. P. Bigelow . Feb. . 1, 1881
247,020, G. W. Deitzler . June 13, 1882
242,2870, C. T. Whedon . May 1, 1883
242,297,0, T. Whedon . May 1, 1883
242,287,0, C. T. Whedon . May 1, 1883
242,284, S. W. Johnson . Oct. 20, 1885
328,685, H. C. Johnson . Nov. 10, 1885
348,115, J. W. Egan . Sept. 7, 1886
348,115, J. W. Egan . Sept. 7, 1886
348,115, J. W. Egan . Sept. 7, 1886
348,115, J. W. Egan . Sept. 11, 1892
4470,167, C. F. Paige . Mar . July 12, 1892
4470,167, C. F. Paige . Mar . Sept. 11, 1892
4470,167, C. F. Paige . Mar . July 12, 1893
535,175, C. W. Schwartz, Jr.

524,243, Mar. 19, 1895
535,175, C. W. Schwartz, Jr. Mar. 19, 1895
535,830, A. Horn.
594,413, C. J. Medberry & J. T. Gur594,413, C. J. Medberry & J. T. Gur604,583, L. Morris Nov. 21, 1899
637,383, T. H. Gore Mar. 6, 1900
644,847, M. Cooper Mar. 13, 1900
645,210, H. B. Murdock May 8, 1900
649,319, J. L. Larson May 22, 1900
650,217, J. J. Bailey Oct. 9, 1900
659,468, M. Cooper Feb. 19, 1901 634,583, J. L. Morris 637,383, T. H. Gore 644,847, M. Cooper 645,210, H. B. Murdock 649,319, J. L. Larson 650,217, J. J. Bailey 659,468, M. Cooper 688,563, A. E. Kayser 678,586, W. B. Carnay Schwarz.

Schwarz July 30, 1902
N. Phifer Feb. 11, 1902
F. George & F. Rademacher July 21, 1903
J. Wirfs Mar. 15, 1904
J. P. F. Magniez Nov. 7, 1905
DeVaux April 19, 1904
S. Hickley April 23, 1907
A. McKee & G. R. Evans July 28, 1908
V. H. Carter June 1, 1909
O. Lee June 1, 1909
O. Lee June 2, 1909
J. Carpenter Nov. 23, 1909
J. Carpenter Nov. 23, 1909
J. Carpenter Nov. 23, 1909
J. Carpenter Jan. 9, 1912
A. Wenborne Jan. 9, 1912
W. McAfee Nov. 18, 1913
E. Starr Nov. 18, 1913
C. Palmer April 28, 1914
L. Starr & C. C. Palmer Nov. 30, 1915
V. A. Freeman Nov. 2, 1925
G. Copeman Dec. 2, 1924
G. Peck April 7, 1925
Sub Class 104 734,248, E. J. 754,749, M. 757,822, E. 1803,887, A. 1837,453, L. 1851,516, A. 5894,279, L. 6895,962, C. 6923,624, W. 924,476, C. 6925,887, M. 938,554, E. 6940,952, G. 1,014,190, C. 1,071,449, J. V. 1,079,069, J. I. 1,079,070, C. 1,095,008, S. 1,11,679,970, C. 1,095,008, S. 1,117,534, L. 1,1532,936, J. 1,1512,936, J. 1,1

Sub Class 104

Refrigerators, Liquid-Contact Cooler Refrigerators cooled by direct contact of the air of the refrigerator with a cooled

Religionator with a cooled	
e air of the refrigerator with a cooled	
11	
luid. July 18, 1871 117,087, C. P. Leavitt	
117 087. C. P. Leavitt Aug. 22, 1871	1
10 411 E. C. Weld Nov. 11 1873	1
118,411, A H Tait	-
144,577, A. H. Launt Mar. 20, 1079	
1010. 117,087, C. P. Leavitt. July 18, 167,1 118,411, E. C. Weld. Nov. 11, 1873 144,577, A. H. Tait. Mar. 28, 1876 175,290, S. D. Lount. Feb. 26, 1878 175,290, T. L. Alberger. Feb. 26, 1878	
144,377 S. D. Lount Mar. 20, 1878 175,291, S. D. Lount Feb. 26, 1878 e. 8,109, J. L. Alberger April 23, 1878 202,867, A. C. Rand Feb. 22, 1881	
202 867, A. C. Rand Feb. 22, 1881	
265,250, J. Baid	
237, 256, 250, J. Enright. July 24, 1883 281, 793, J. Reid. Dec. 18, 1883 290, 483, E. Schroder. Jan. 27, 1885 290, 483, E. Schroder. Jan. 27, 1885	1
290,483, E. Schröder Jan. 27, 1885	
	1
281, 381 E. Schroder Jan. 27, 1885 311, 298, W. H. Doughty June 2, 1885 319, 374, T. R. Wingrove Aug. 11, 1885	1
319,374, T. R. Wingrove. Aug. 11, 1885 324,229, A. J. Chase. Mar. 9, 1886 337,446, T. Scott & L. Bovard. Aug. 3, 1886	
324,220 T Scott & L. Bovard 2 1886	1
337,440, 1. Cramer	1 -
346,807, A. F. Craite Jan. 28, 1890	F
420,317, C. N. Switc. Dec. 29, 1891	1
324,229, A. J. Class. 337,446, T. Scott & L. Bovard. Mar. 3, 1886 337,446, T. Scott & L. Bovard. Aug. 3, 1886 420,317, C. N. Swift. Dec. 29, 1891 466,049, D. J. Davis. Sept. 12, 1893	
420,317, C. J. Davis Sept. 12, 1893 504,986, J. Kurtz April 5, 1898 601,716, J. Sedlacek Feb. 13, 1900	
643,209, J. W. Wollmann	
649,558, C. W. Paren Nov. 20, 1901	
706.327, J. E. Lawrence	2
687, 341, 1 706, 327, J. E. Lawrence. Aug. 12, 1902 706, 511, E. Barrath. May 7, 1907 852, 543, H. E. Deckebach. Nov. 19, 1906 871, 397, J. J. Glauser. June 2, 1900	
959 543 H. E. Deckebach Nov. 19, 1907	7
971 307 I. J. Glauser Tune 2, 1908	8
8/1,097, J. Levy	8
871,397, J. J. Glauser June 2, 1908 889,627, L. Levy June 16, 1908 891,020, G. T. Voorhees June 22, 1909 905,605, D. F. Solliday Mar, 13, 192	ñ
891,020, G. 1. Voorheed June 22, 190	9
925,605, D. F. Somuay Mar. 13, 192	0
1 448 331, F. E. Calkins Dec. 25, 192	3
889,627, L. Levy. June 16, 190 991,020, G. T. Voorhees June 22, 190 925,605, D. F. Solliday Mar. 13, 192 1,448,331, F. E. Calkins Dec. 25, 192 1,478,471, J. P. Doroding Mar. 25, 192 1,487,883, P. W. Petersen June 3, 192 1,908,700, A. C. Wright Feb. 24, 192	4
1,47 992 P. W. Petersen June 3, 192	4
1,487,000, A C Wright Feb 24 192	5
1,450, and D E Kolhe 10 100	15
1,527,562, R. E. Musser May 19, 192	25
1.538,206, K. B. Mussel July 28, 192	20
1,527,562, R. B. Musser May 19, 16, 16, 1538,206, R. B. Musser July 28, 19, 1547,258, J. W. Newton Sept. 15, 19, 15, 15, 15, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	25
1 553 846. I. Blozek	
1,000,02013	

Sub Class 105

Ice Making Apparatus

Ice Making Apparatus	54
Apparatus peculiarly adapted for making	58
Apparate 1	
Apparatus peculiarly adapted for making 68,404. T. S. C. Lowe. May 29, 1877 191,256. C. L. Riker July 13, 1886 230,025. O. Kropff. July 25, 1887 261,810. T. Cook & O. Abrecht July 25, 188, 261,810. T. Cook & O. Abrecht July 25, 188, 314,57. A. G. Southby Mar 2, 188, 337,318. J. S. Field Aug. 2, 188, 337,318. J. S. Field Aug. 2, 188, 399,012. J. N. Briggs Sept. 6, 188, 399,012. J. N. Briggs Mar. 5, 188, 425,325. O. P. Jaques April 1, 189, 425,316. A. Gudes & B. Thoens April 1, 189, 427,707. T. Shaw Sept. 27, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	50 66 66 66 67 77 99 90 90 90 91 91 91 92 992 993 994 11
530,520, D. I. Holden & L. W. Ser Dec. 11 18	394
rell Feb. 9, 18	397
576,724, G. A. Foster 577,175, R. R. Reynolds & B. M. Kirker July 19, 1 607,764, T. L. Rankin July 19, 1 607,765, T. L. Rankin Oct. 3, 1 634,350, A. H. Hutchinson Dec. 5, 1 638,491, F. Allen Dec. 5, 1	897 898 898 899 899

	554,395, N. H. Hiller & H. Torrance, July 24, 1900	CI
6	54,395, N. H. Hiller & H. Torrance, July 24, 1900 Jr. Tilleich Feb. 12, 1901	U
	Jr. Jr. Feb. 12, 1901 667,897, E. J. Ullrich April 16, 1901	1
- 6	667,897, E. J. Ullrich April 16, 1901 372,036, A. Freeston June 4, 1901	4.
- 6		,
4	279 017 H. A. MacCirian	pa
		iss
1	Sims. Aug. 27, 1901 681,348, T. Shipley. Nov. 12, 1901 686,268, E. G. DeRy June 24, 1901	No
	886 968 E. G. Delles	
		97
1	704,382, J. Scheidenan Sept. 3, 1907	
	703,333, S. Scheideman Sury 5, 1807 704,382 J. Scheideman Sept. 3, 1807 865,040, D. L. Holden Sept. 29, 1908 899,925 T. L. Valerius Sept. 29, 1908 899,928, T. L. Valerius Dec. 28, 1909	
1	899,925, T. L. Valerius	
T		
P		
		fia
		1
	971,183, A. Faget Dec. 13, 1910 978,279, A. Faget April 11, 1911	1
)		1
	990,591, W. T. Ray Mar. 19, 1912 1,020,759, D. L. Holden April 30, 1912	1
1		fe
1	1,024,576, N. H. Hiller Sept. 24, 1912 1,039,586, J. Patten Jan 12, 1913	10
4	1,039,586, J. Patten. Jan 12, 1913 1,051,296, E. T. Williams. Jan 22, 1913 Mar. 4, 1913	e
5	1,051,296, E. T. Williams Mar. 4, 1913 1,054,771, D. L. Holden Mar. 4, 1913	
5	1,054,771, D. L. Holden Mar. 4, 1913 1,054,772, D. L. Holden July 1, 1913 1,066,348, G. T. Vorhees Sept. 2, 1913	
5	1 066,348, G. T. Vorhees Sept. 2, 1913	1
0	1 071.740, 14. 11. 11mer	3
5	1 080.540, W. Cooper	5
6	1,123,537, H. D. P. Huizer	5
6	1 130 960. W. 1. Carter.	2 6
7	1,143,185, C. De V. Grant Nov. 2, 191 1,158,592, T. L. Valerius Aug. 15, 191	5 8
77	1,158,592, T. L. Valerius Aug. 15, 191 1,194,430, M. Schilde April 3, 191	5 6
78	1,194,430, M. Hyatt	3 3
79	1,194,430, M. Schilde April 3, 191 1,221,054, J. W. Hyatt Mar. 20, 192 1,449,225, W. Griesser April 17, 192 0, 194	3
80	1 451 903. U. Ficia Feb 26. 194	4
80	1,451,903, O. Field. Feb. 26, 192 1,484,982, G. B. Bright Dec. 28, 192	6
80	1,484,982, G. B. Bright Dec. 28, 192 1,612,021, U. H. Horn Dec. 28, 192	1
80	G 1 Class 106	

Sub Class 106

Sub Class 106	
Ice Making Apparatus, Freezers	
Ice Making Apparation use to	
Apparatus peculiarly adapted in use to	
he freezing of water into ice. April 2, 1867	e
he freezing of water into ice. April 2, 1867 63,404, T. S. C. Lowe. Oct. 4, 1870	0
63,404, T. S. C. Lowe Oct. 4, 1870 107,898, J. F. Fesner Oct. 4, 1870	_
107,898, J. F. Fesner 126,305, R. W. Johnston & W. White- 126,305, R. W. Johnston & W. White-	2
126,305, R. W. Johnston & W. White law	1
	1
198,831, A. Albertson Oct. 15, 1878 Re. 8,455, A. Albertson Jan. 11, 1881	ı
Re. 8,455, A. Albertson. Jan. 11, 1881 236,471, Franz Windhausen April 5, 1881	
236,471, Franz Windhausen April 5, 1881 239,666, C. C. Palmer Aug. 2, 1881	
239,666, C. C. Painter Aug. 2, 1881 245,094, T. Rose July 1, 1884	
245,094, T. Rose. July 1, 1884 301,457, J. Patten. July 24, 1900	
301,457, J. Patten. July 24, 1900 654,576, G. H. Abrams July 24, 1901 Mar. 19, 1901	
654,576, G. H. Abrams Mar. 19, 1901 670,247, A. H. Rauch April 30, 1901	
670,247, A. H. Rauch 673,075, M. E. Douane June 24, 1902	
673,075, M. E. Douane June 24, 1902 703,315, S. N. Smith Aug. 5, 1902	
703,315, S. N. Smith. Aug. 5, 1902 706,327, Jesse F. Lawrence. Aug. 12, 1902	ı
706,327, Jesse F. Lawrence Aug. 12, 1902 706,510, E. Barrath Oct. 27, 1903	١
706,510, E. Barrath Oct. 27, 1903 742,482, C. C. Palmer June 21, 1904	l
742,482, C. C. Palmer June 21, 1904 763,089, W. E. Crane Aug. 21, 1906	ł
763,089, W. E. Crane. Aug. 21, 1906 828,888, W. T. Hoofnagle. Jan. 2, 1912	ļ
1 013.470, M. C. J. Bannister Ion 6, 1920	١
1 327 414. W. D. Wilcom. April 17, 1923	١
1,327,414, W. D. Wilcox. April 17, 1923 1,451,904, C. Field. Feb. 17, 1925	1
1,451,904, C. Field	
Sub Class 107	

4		11
•	Ice freezers in which the liquid is sprayed	
1	npon the freezing surface. 118,411, E. C. Weld	
	118.411, E. C. Weld Oct 7, 1873	
	143 446, S. S. Fitch May 5, 1874	
	150.477, S. B. Martin April 20, 1875	a
	162.397, S. B. Martin. Oct 12, 1875	
	168,706, J. M. Beath Nov. 30, 1875	
	170.508, J. M. Beath Dec. 21, 1875	
	171 267. I. COOK	
	173.314. S. B. Martin	
	173,315, S. B. Martin Mar. 14, 1876	
	174.833, T. B. McFadden Jan. 23, 1877	١.
	186,589, R. H. Lucas Oct. 11, 1881 248,157, C. W. Gelett Oct. 11, 1881	1
	248,157, C. W. Gelett. 253,790, A. Von Krause & M. Kuh- Feb. 14, 1882	1
	253,790, A. Von Krause & M. Kun Feb. 14, 1882 nen Aug. 10, 1897	1
	nen Aug. 10, 1897 587,840, J. H. Martin Aug. 30, 1898	1
	587,840, J. H. Martin Aug. 30, 1898 609,814, G. Koser June 18, 1901	1
	609,814, G. Koser. June 18, 1901 676,662, J. Patten. Oct. 8, 1901	1
	676,662, J. Patten. Oct. 8, 1901 684,385, J. F. Sanders. Sept. 15, 1903	1
	684,385, J. F. Sanders. Sept. 15, 1903 738,761, W. G. Bloss. Sept. 15, 1903	1
ı	738,761, W. G. Bloss 738,762, W. G. Bloss 738,763, W. G. Bloss	1
١	738,762, W. G. Bloss 857,841, D. D. & D. J. Sprague. June 25, 1907 Mar. 19, 1912	. 1
١	857,841, D. D. & D. J. Sprague Mar. 19, 1912 1,020,759, D. L. Holden July 28, 1914	
l	1,020,759, D. L. Holden July 28, 1914 1,104,920, W. S. Osborne Oct. 29, 1918	1
l	1,104,920, W. S. Osborne Oct. 29, 1918 1,283,017, M. Zavarkin May 15, 1923	
١	1,283,017, M. Zavarkin May 15, 1923 1,455,156, R. A. Willson Dec. 25, 1923	2
1	1,455,156, R. A. Willson Dec. 25, 1923 1,478,863, W. Stewart Mar 3, 1925	5
١	1,478,863, W. Stewart	5
1	1,528,043, G. L. Bennett June 2, 192 1,540,039, W. Stewart June 2, 192	5
	1,540,039, W. Stewart	
	C-t Class 108	
	C-b (lose III)	

Sub Class 108

Ice Making Apparatus, Freezers, Tank Ice-making apparatus having a tank for liquid peculiarly adapted for freezing the liquid in the tank.

7	1
(quid in the tank.
	50,212, J. B. J. Mignon & S. H. Sept. 26, 186
	50,212, J. B. J. Mignon & S. H. Sept. 26, 186 Rouart
	63,413, T. S. C. Lowe Sept. 28, 186
	63,413, T. S. C. Lowe Sept. 28, 186 95,347, D. L. Holden Dec. 27, 187
	95,347, D. L. Holden. Dec. 27, 187
	95,347, D. L. Holden. Dec. 27, 187 110,573, J. Kraffert. Nov. 28, 187
	121,402, A. Muni C. F. Dietrich Feb. 4, 187
	110,573, J. Kraffert Nov. 28, 187 121,402, A. Muhl Norman & C. F. Dietrich. Feb. 4, 187 135,576, H. Norman & C. F. Dietrich. Feb. 8, 187
	173.310. S. D. May 30. 186
	173,316, S. B. Martin. May 30, 187 177,999, J. F. Fesner Mar. 27, 187 188,945, T. L. Rankin Jan. 1, 18
	198 045 T. L. Rankin 1 185
	188,945, T. L. Rankin Jan. 1, 187, 198,831, A. Albertson Aug. 20, 187
	198,831, A. Albertson Aug. 20, 18, 207,290, E. P. Lorch Mar. 2, 18, 21, 22, 23, 24, 25, 26, 27, 29, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20
	207,290, E. P. Lorch Mar. 2, 18, 225,037, A. J. Zilker July 13, 18
	225,037, A. J. Zilker. July 13, 18 229,941, A. T. Ballantine. July 13, 18 July 13, 18
	229,941, A. 1. Ballatterite July 13, 18
	230.102, A. J. Ziikei May 31, 18
	949 107, D. Buyle
	242,107, D. Boyle. Aug. 30, 18 246,406, F. M. McMillan Aug. 30, 18 246,406, F. M. McMillan July 25, 18
	246,406, F. M. McMillan July 25, 18 261,810, T. Cook & O. Albrecht July 25, 18 Oct. 24, 18
	261,810, T. Cook & O. Albrecht Oct. 24, 18 Re.10,221, R. P. Pictet July 31, 18
	Re.10,221, R. P. Pictet July 31, 18 282,101, H. & R. McManus July 31, 18 Sept. 4, 18
	282,101, H. & R. McManus Sept. 4, 18 284,515, B. Thoens Sept. 4, 18 284,515, B. Thoens 8, 18
	284,515, B. Thoens. 291,774, G. H. Reynolds & L. Allen Jan. 8, 18 291,774, G. H. Reynolds & L. Allen Jan. 8, 18
	291,774, G. H. Reynolds & L. Allell Feb. 26, 18 294,093, G. Taylor
	294,093, G. Taylor Sept. 9, 18 304,871, G. W. Stockman Sept. 9, 18 Jan. 20, 18
	204 871 Ct. W. Stockind
	311.013, J. C. Kitton Mar. 24, 1
	314.337, J. C. Kiccon.
l	322.829, A. R. Kenney.
	322,829, A. R. Kenney June 22, 1 344,310, A. Evans, Jr. May 17, 1 363,248, G. F. Knox C. H. Culver &
l	363,248, G. F. Knox. 420,188, J. L. Clark, C. H. Culver & 420,188, J. L. Clark, C. H. Culver & Jan. 28, 1
1	420,188, J. L. Clark, C. H. Culver & Jan. 28, 1 J. H. Stratton Mar. 25, 1
	J. H. Stratton Mar. 25, 1 424,005, J. C. Kitton April 5, 1
	424,005, J. C. Kitton. April 5, 1 472,407, A. Smith. May 24, 1
	472,407, A. Shirth
	472,407, A. Smith May 24, 1 475,629, C. E. Struck June 14, 1
	476 929 1 Shipicy You
	480 387. 1. A. Mullel
	489,387, J. A. Muller Jan. 24, 490,475, D. L. Holden May 16,
	490,475, D. L. Holden May 16, 497,650, E. C. Fuchs July 4, 501,045, G. F. Knox July 11,
į	501 045, G. F. Knox July 11.

1 4	75,629, C. E. Struck June 14, 1892	
4	75,629, C. E. Struck June 14, 1892 76,832, T. Shipley Jan. 3, 1893	
4	76,832, T. Shipley Jan. 3, 1893 89,387, J. A. Muller Jan. 24, 1893	of
4	89,387, J. A. Muller Jan. 24, 1893 90,475, D. L. Holden May 16, 1893	
4	90,475, D. L. Holden May 16, 1893 97,650, E. C. Fuchs July 4, 1893	rec
4	97,650, E. C. Fuchs July 4, 1893 501,045, G. F. Knox July 11, 1893	
1 0	301,045, G. F. Knox. July 11, 1893 501,316, L. Block. Aug. 1, 1893	
1 0	501,316, L. Block Aug. 1, 1893 502,437, E. D. Kendall Dec. 19, 1893	
1 5	502,437, E. D. Kendall	
1 -	511,120, E. Butler Mar. 20, 1894 e.11,406, C. E. Struck May 8, 1894	1
Re	e.11,406, C. E. Struck May 8, 1894 519,359, R. M. Taylor Oct. 1, 1895	1
1	519,359, R. M. Taylor Oct. 1, 1895 547,251, O. Hammond, Jr. May 11, 1897	w
g .	547,251, O. Hammond, Jr. May 11, 1897 582,289, H. A. Hunt May 11, 1897	
	582,289, H. A. Hunt May 11, 1897 582,290, H. A. Hunt Dec. 28, 1897	di
7	582,290, H. A. Hunt Dec. 28, 1897 596,123, L. Pusey May 23, 1899	1
7	596,123, L. Pusey May 23, 1899	1
30	596, 123, L. Pusey May 23, 1899 625,447, J. Humes Jan. 9, 1900 640,910, G. B. Hiett Oct. 9, 1900	
32	640,910, G. B. Hierr. Oct. 9, 1900	
95	850 554. 1. Shipicy	
85	659,554, T. Shipley Oct. 9, 1900 659,610, T. Shipley June 24, 1902	
86	703,353, S. N. Shitti Oct. 7, 1902	1 b
86	710,662, L. Block Mar. 7, 1906	,
87	784,315, A. U. Frick Jan. 2, 1900	2
89	808 898, K. S. Cates April 9, 1906	
90	849,864, J. Souther June 25, 190	
90	857,841, D. D. & D. J. Sprasa Feb. 11, 190	8
90	878,501, F. C. Burnamer July 28, 190	0
391	904 285. H. Kasspach 15 190	8
391	906.906, J. D. Mayner May 11, 190	9
391	921,370, W. Degener, 3. Sept. 6, 191	0
	969,696, J. B. Howe	1
392	083 505, F. N. McCiai	1 4 1
893	004 881. H. Sloan Nov 28, 191	11
894	1 010 225, E. N. Dicituis May 21, 19	121
894	1.027,305, W. E. Armistead. Oct. 15, 19	12
894	1,027,305, W. E. Armistead Oct. 15, 19 1,041,317, A. B. Mattingly Jan. 21, 19 1,041,317, A. B. Mattingly Jan. 21, 19	101
894	1,041,317, A. B. Mattingly Jan. 21, 19 1,051,297, E. T. Williams Jan. 21, 19	10 1
004	1,051,297, E. T. Williams Jan. 21, 19 1,051,298, E. T. Williams Mar. 4, 19	13
894	1,051,298, E. T. Williams Mar. 4, 19 1,054,771, D. L. Holden May 20, 19	13
1897	1 062 530. W. E. Armistead.	115
	1,062,530, W. E. Armisteau Oct. 12, 19 1,156,832, W. Blankmer Nov. 30, 19	20
1897	1,156,832, W. Blankner Nov. 30, 19 1,360,315, G. L. Renschline Jan. 29, 19	124
1898	1,360,315, G. L. Renschine Jan. 29, 19 1,482,227, C. Field Mar. 3, 19	25
1898	1,482,227, C. Field	
1899		
1899	y Ctoute will	be

Note: This record of patents will be continued in coming issues.

CLASS 62---REFRIGERATION

Data on sub-classifications Nos. 1, 2, 3, 4, 5, 6 and 7 of electric refrigeration patents were published in the March 2 issue, and the data on sub-classifications Nos. 8, 89, 90, 91, 92, 93, 94, 95, 96 and 97 were published in the March 16 issue.

Sub Class 1. Miscellaneous

Refrigerating means not otherwise classi-

Sub Class 2. **Automatic Control**

Refrigerating apparatus having means for regulating temperature, etc., independent of manual control.

Sub Class 3. Automatic Control, Compressor-Control Condenser-**Expander Circuit**

Automatic control apparatus in which a gas passes through a compressor into a condenser and then into an expander, such as an expansion coil, where the condensed gas absorbs heat and passes again into the compressor.

Sub Class 4. Automatic Control, Compressor-Condenser-Expander Circuit, Motor Control

Automatic control compressor-condenser expander circuits in which the motor for operating the compressor is controlled according to conditions of temperature or pressure in the circuit or in the chamber to be cooled.

Sub Class 5. Automatic Control, Still Circuit

Automatic control apparatus comprising a still (heated vaporizer) for generating a gas, means for cooling the gas, an expander for the cooled gas, and means for finally returning the gas to the still, either with or without a separate absorber. without a separate absorber.

Sub Class 6. Automatic Control, Chamber Cooler

Automatic control apparatus peculiarly Sub Class 107

Ice Making Apparatus, Freezers, Spray

Lee freezers in which the liquid is control apparatus pecunariy adapted for cooling chambers, rooms, houses, or like inclosures.

Sub Class 7. Automatic Control, Fluid Cooler

ing

Automatic control apparatus particularly adapted to cooling a fluid.

Sub Class 8. Automatic Control, Expander

Automatic control apparatus comprising means wherein a liquefied or condensed gas may be increased in volume, the controlling may be increased in volume, the controlling means regulating the evaporation of the condensed gas therein, depending on the temperature or pressure within the expander or the temperature of pressure within the expander. or the temperature or pressure within the inclosure in which the expander is located. Note. — Expanders are usually called 'expansion-coils;" but they may be of any Note. form.

Sub Class 89 Refrigerators

Miscellaneous refrigerated chambers or compartments of any kind not merely ice cooled and not specifically provided for else-

Sub Class 90 Refrigerators, Evaporative

Refrigerators, Evaporative

Refrigerators consisting of a closed nonporous refrigerating chamber for food, with
means for evaporating a liquid in contact
with the outer walls of the chambers.

Note.—This does not include chambers
having means for moistening the interior
walls, nor mere evaporating means, nor a

walls, nor mere evaporating means, nor a mere chamber with specific evaporating means, even although the intention be to use the apparatus as a refrigerator. Sub Class 91

Refrigerators, Evaporative, Receptacle Refrigerators consisting of a non-porous

receptacle, open at the top, having means for applying water to the outside, which evaporates to cool the receptacle.

Sub Class 92 Refrigerators, Liquefied Gas

Refrigerators cooled by liquefied gas or

by the expansion of gas under pressure. Sub Class 93 Refrigerators, Liquefied Gas, Absorber

Refrigerators cooled by the vaporization of liquefied gas and having an absorber for recovering the gas.

Sub Class 94 Refrigerators, Chemical

Refrigerators provided with special means whereby chemicals may be utilized to produce low temperatures. Sub Class 95

Refrigerators, Indirectly Cooled

Refrigerators cooled by a liquid that has been cooled by other means.

Sub Class 96 Refrigerators, Air Cooled

Refrigerators cooled by expansion of air in an expander or coil, whether associated with means for expanding air directly in the chamber or not, the air having been first compressed and cooled, or those for admitting air at atmospheric pressure, combined with some specific means for cooling and distributing the air.

Sub Class 97 Refrigerators, Air Cooled, Expansion in Chamber

Air-cooled refrigerators in which air is compressed, cooled, and admitted into the refrigerating chamber to expand therein.

LOS ANGELES SERVEL SALESMAN SETS RECORD

Sells \$65,000 Worth of Refrigerators in the Short Month of **February**

It is a far cry from the wine salesman of pre-Volstead days to the modern elec-tric refrigerator salesman, but C. S. Harrison, who made a record peddling California's liquid fruit up and down the sunny Pacific Coast way back in those damper



C. H. HARRISON

days, and who is now connected with the retail store that serves Servel to folks who live where "the sunshine spends the winproved that all selling looks alike to the real salesman, when he turned in orders for Servel refrigerators amounting to \$65,000 during the month of February! Since 1907 Mr. Harrison has had a

varied and successful business experience Having made a success of every undertaking with which he has been associated, it was only natural that when he came with Servel he immediately saw wonderful possibilities in this verdant field, and as Mr. Edison remarked at one time in conection with the phonograph, "I wou'd like to see one in every American home," so thought Mr. Harrison about the electric refrigerator, and he decided he would start to accomplish this feat in Los Angeles. Even at the rate Mr. Harrison is going, it will be some time yet before one man will be able to accomplish this Herculean job alone, but we must all admit that he has made a good start, and if he could only be assured of enough time, we believe that success would crown his efforts.

While it is a fact that electric refrig-While it is a fact that electric retrigeration as a principle is sold—and sold in A NEW IDEA FOR very definite way-to the public, yet, being a highly specialized appliance, it must be admitted that it takes a high-grade, high-class salesman to sell it to the individual to any great extent. Harrison is just that sort of a salesman! He was not satisfied to peddle-he knew that to sell larly to the younger married set. electric refrigerators he must know all has supplied his apartments with all sorts about the refrigerator, its mechanism, the of labor-saving devices, electric refrigerators are refrigerators. cycle of refrigeration, what it would do tors and push-button elevators. But he for the purchaser, the electric refrigerator has gone further than this. He has comin new homes and apartment houses as an pletely furnished the apartments so that investment for the owner, and how to put the home-seeker moves into a fully-up a logical, attractive sales talk and put it over in an enthusiastic manner. He made up his mind not simply to sell electric refrigeration, but to sell Servel Electric Refrigeration, never mantioning the fact. Refrigeration, never mentioning the fact the young couple's viewpoint it is an easy that there might be other makes, and never

JANUARY EXPORTS OF **ELECTRIC REFRIGERATORS**

A report of the Department of Com-merce, Bureau of Foreign and Domestic Commerce, Washington, D. C., shows exports of electric refrigerators during January as follows:

Refrigeration Sets Up to 1 Ton Countries Capacity

	Vumber	Dollars
Belgium	. 17	2,615
Denmark and Faroe Isl	. 32	14,389
France	. 6	939
Germany	. 80	13,944
Italy		4,575
Rumania	. 1	474
Spain	. 5	1,503
Switzerland		11,390
United Kingdom		14,264
Canada	. 45	3,198
Nicaragua	. 1	4,615
Salvador	. 3	555
Mexico	. 4	714
Bermuda	. 10	1,937
Other Brit. West Indies.	. 2	761
Cuba	. 7	1,088
Dominican Republic		330
Haitian Republic		385
Argentina	. 85	9,410
Brazil	. 195	24,457
Chile	. 20	2,269
Peru	. 1	279
Uruguay	. 11	918
Venezuela	. 57	4,511
British India	. 61	4,675
British Malaya	. 2	500
Ceylon	. 2	287
China	. 17	1,889
Philippine Islands	. 19	4,060
Australia	. 92	21,865
New Zealand		3,325
British East Africa	. 2	375
Brit, South Africa		14,583
Egypt	. 2	1,888
Total	1,107	172,967

QUICK WAY TO MAKE A WINDOW DISPLAY SIGN

Enameled, metal or glass letters and numbers of the kind which are cemented on to windows to announce the firm's name may be used effectively laid on the floor of a window display. Very often a crepe paper carpet in the window cannot be used

on account of drafts from a fan or door.

Window letters in a case of this kind solve this problem and at the same time give the opportunity of driving home a slogan, name or price by simply arranging the letters. For repeated use the letters can be bought outright or an arrangement may be made with the firm's sign maker.

APARTMENT OWNERS

Charles H. Thompson is constructing an apartment on Saratoga Avenue, Yonkers. He wants his apartments to appeal particuthat there might be other makes, and never allowing himself to be dragged into knocking the other fellow's product.

payment plan of acquiring their household goods.—Building Investment and Maintenance, March, 1927.



Wirfs Gasket

assures

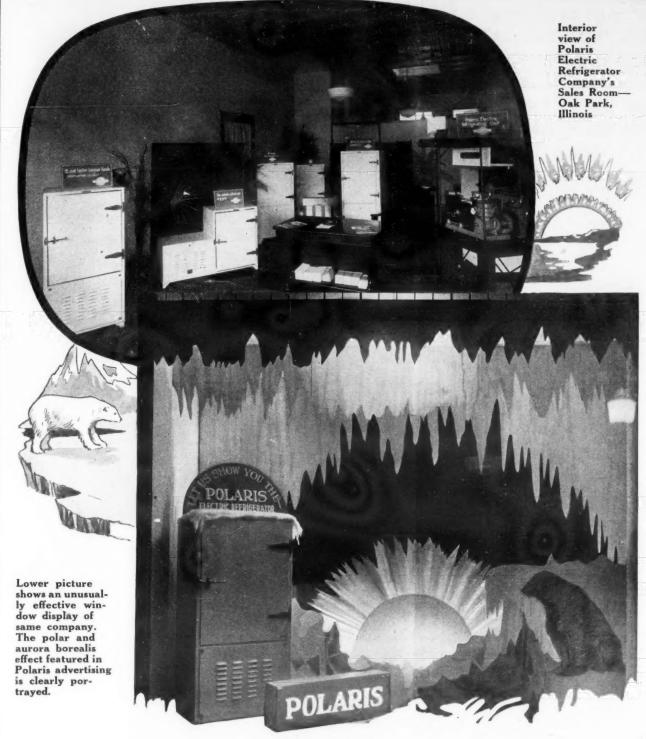
Electrical Refrigeration Efficiency

An electrical unit can only be as efficient as the box in which it is installed. Poor door contacts on wood or metal boxes mean that any unit will have to operate a greater number of hours to maintain an efficient refrigeration temperature. This means added operating cost.

Wirf's PATENTED IRTITE" Gasket

Keeps the cold air in and the warm air out and maintains the proper zone of refrigeration with fewer operating hours. Wide awake dealers have found that it usually clinches the sale. Most manufacturers supply boxes equipped with Wirfs; write us for their names and a sample.

E. J. WIRFS ORGANIZATION, Inc., 135 S. 17th St., St. Louis, Mo.



Foreign Trade Convention in Detroit

The fourteenth National Foreign Trade Convention will be held in the Masonic Temple, Detroit, May 25 to 27. James A. Farrell is chairman and O K. Davis secretary of the National Foreign Trade Council, Hanover Square, New York.

WE KNOW

Enclosed Type Units Will Solve the Service Problem

BECAUSE

No belts.

No stuffing box.

All motor bearings enclosed.

Noises eliminated.

All working parts sealed in chamber, from which gas cannot escape and air cannot enter.

Minimum Amount of Material Less Costly Construction.

We have studied this problem for many years.

We are prepared to show you by facts and figures that sooner or later you must come to the use of the enclosed type unit.

We are prepared to serve a limited number of clients only in the field of Electric Refrigeration.

We are Consulting Engineers, and we will be glad to discuss your prob-lems in strict confidence. We will tell you what we can do for you, and tell you frankly what our services will cost.

We make no charge for preliminary consultation.

H. R. VANDEVENTER, Inc.

Consulting Engineers Sales Specialists

342 MADISON AVENUE, NEW YORK

Telephone Vanderbilt 2669



Refrigeration Compressors

Smooth, silent running compressors - a product backed by years of manufacturing compressors and machinery

WRITE FOR DETAILS

DUNNING PUMP & MFG. CO. PHILADELPHIA, PA. 326 Walnut Street

FLINTLOCK CONDENSERS

EFFICIENT—ECONOMICAL—COMPACT



"UNIVERSAL COOLER" has standardized on Flintlock condensers. The new unit equipped with Flintlock and the old unit is illustrated herewith.

Equipped with Flintlock

An interesting and important book on the application of the Flintlock Condenser to the Refrigeration Industry is now available and will be mailed on request to manufacturers, distributors and dealers.

WRITE FOR YOUR COPY TODAY



Same Unit Equipped with Copper Tubing

FLINTLOCK CORPORATION

4461 W. Jefferson Ave.

Detroit, U.S.A.

WHY I LIKE THE ELECTRIC REFRIGERATOR

One of a Series of Interviews the Society for Electrical Development Has Had With Peo-ple Who Speak from Their Own Experience.

Costs Less to Operate Than She Had Expected—Tots Like It Too

"Why do I like my electric refrigera-tor?" answered Mrs. X., a friendly and efficient looking woman. "It's not a ques-tion of just 'liking.' I actually can't see, after three or four months of real satisfaction and joy, how I ever managed with-

"When it was installed I feared the cost of electricity would be high. But upon the arrival of my first electric bill (privately I had been dreading it) to my great astonishment, computing as nearly as I could, I found that electricity to run my refrigerator had cost me much less than anyone had expected. I lost no time in telling my friends who had been warning me to 'wait till the bills come in.' They were a little bit upset about it, but did, quite gracefully, congratulate me.

What Her \$6.60 Bill Covered

"I have three electric things in the house that require power, and all of them are on one circuit separate from the wiring that serves the lights. So electricity for these three—the oil furnace motor, the ironing machine and the refrigerator-is measured separately from the rest of our electric bill. Well, last month my bill for the three was \$6.00. Ordinarily it is only about \$5 a month in summer. In our town the company gives us a special rate on these power appliances, ranging from 9 cents a kilowatt-hour down to 4 cents.

A Tray for the Children

"You never can imagine what fun my two grandchildren had last summer. They live close by and adore running in. The first thing I know they had high-handedly appropriated a freezing tray each, and in no uncertain manner announced that the trays and contents were theirs! Every morning they would dash in and concoct something with which to treat the other environs children." envious children.

Here's An Idea

Mrs. X. is a famous housekeeper and puts her ideas to work for her as she is at her desk in a large publishing house each day. She is so practical herself that I wasn't surprised to have her continue by saying: "I'd like to remind everyone who is fortunate enough to own a seamless. porcelain lined box that the old days of scrubbing with scalding water, soap and washing soda are over. If anything is spilled, wipe it up quickly with cold water and baking soda, then dry the spot. In this way you are not putting a lot of warm moist air into your refrigerator, causing the motor to run oftener and the charge for current to be greater.

Have Plenty of Space

"Don't make the fatal mistake of buying too small a refrigerator in the first place. Electric refrigeration is really cold storage brought into the home, and much of the efficiency of your miniature cold storage plant depends upon free circulation of air, which you cannot get in an overcrowded box. For instance, I purposely bought a box with two or three cubic feet of extra food capacity. I hate crowding the shelves, for I know if I do I am not getting the full value of refrigeration.

"The larger box costs little, if any, more to run, and there is enough space in it so that I can buy perishable things in greater quantities, and thus save money on them." electric refrigerator says: "This icebox is open for inspection at all times."

They Will Soon Be "Electric Refrigeration Engineers"



Senior Engineering Students Studying Electric Refrigeration Design at Purdue University, Lafayette, Ind.

SKEPTICAL SALESMEN SHOULD TRY THIS

Mr. Johnson, of Collins-Kelvinator, of Los Angeles, may be living in California, but he is certainly from Missouri when it comes to believing anything. In fact, the following incident will show that he couldn't even convince himself until he had properly proved his point.

Johnson was firmly of the opinion that it was impossible to get into private homes as a salesman and receive civil treatment. He conceived the idea of selling home owners the little sign, as shown below, to place over their door bells.

> NOTICE-**PEDDLERS** OR AGENTS DO NOT RING BELL

Johnson, therefore, had a local nameplate concern make 100 of these plates for nim. He spent a couple of days trying to sell them to householders, and, after visiting close to 100 residences, only succeeded In fact, in in selling one of the plates. a great many cases he was told that they did not wish to put such a sign up because hey were not adverse to seeing people who had things to sell.

These experiences so changed Mr. Johnson's opinion that he is now pushing door bells with the firm belief that he will get to the housewife or home owner and present the Kelvinator story to them. He now has faith in what he is doing, and what a man believes he can do, he usually does .- Cold Facts.

Evanston Prospects Overlooked

According to a letter sent out by The Mailbag, a publication devoted to direct advertising, "a staff writer went all over Chicago trying to get a folder or booklet Keith Bldg., Cleveland, Ohio. that would sell him an Orthophonic Victrola, and couldn't get it.

"A man who earns \$15,000 a year took a census of his neighbors in Evanston and couldn't find one who had ever received a direct mail invitation to buy a Kelvinator, a Frigidaire or a Servel."

General Electric Pays \$48,400 for Suggestions

Awards amounting to \$48,400 were paid to 4,405 employees of the General Electric Company during 1926 for suggestions which either improved working conditions or tended to increase the efficiency of the company's operations. During the year, 13,703 suggestions were offered, an

□ Stamps

Subscription Order

BUSINESS NEWS PUBLISHING Co. 409 East Jefferson Avenue Detroit, Mich.

DATE

Gentlemen:

Please enroll me as a subscriber to ELECTRIC REFRIGERATION NEWS, the Business Newspaper of the Electric Refrigeration Industry.

United States: □\$1.00 per year □ Three years for \$2.00. Foreign Countries: \$\square\$ \$1.50 per year.

I am enclosing payment in the form of

□ Check ☐ P. O. Order ☐ Cash

Company

Street Address

City and State ...

☐ NOTE: If it is inconvenient for you to enclose payment with this order, check this square and invoice will be mailed. Do it now, while you have the blank before you. It will save the time and trouble of writing a letter and you will be sure to get the next issue.

ADVERTISING AGENCY NEWS

The advertising of the Superior Sheet Steel Company, Canton, Ohio, will be directed by the Robbins Pearson Company, 390 East Broad Street, Columbus, Ohio.

The New York office of the U. S. Advertising Agency will direct the advertising of the electric refrigeration division of the Martin-Parry Corp, York, Pa.

J. Horace Lytle, advertising agency, Harries Building, Dayton, Ohio, has been appointed to handle the account of the Everite Products, Inc., 200 Davis Avenue, Davton, Ohio.

The advertising account of the Welsbach Company, Gloucester City, N. J., has been secured by Breeding, Murray & Sales, Lib-erty Trust Bldg., Philadelphia.

The Austin F. Bement, Inc., agency, General Motors Bldg., Detroit, will direct the advertising of the Universal Cooler Corp., 1214 North Eighteenth St., Detroit.

Brooke, Smith & French, 206 Eliot St. Detroit, have been appointed merchandising counselors for the Norge Corporation, 670 East Woodbridge St., Detroit.

WHAT THEY SAY ABOUT **ELECTRIC REFRIGERATION NEWS**

Very Much Pleased with the Paper "I have just finished the February 16th ssue of ELECTRIC REFRIGERATION NEWS, which happens to be the first of my subscription, and I am very much pleased with it."—Mr. Thomas Martin, 103 Carson Ave., Newburgh, New York.

"The Best and Most Newsy" Our entire organization certainly compli-

ments you on the very fine paper you are publishing. We believe it is the best and most newsy that comes to our office,"—R. C. Harmon, Ferro Enamel Supply Co.,

You Are Right, Mr. Fox, the Crowd Was In the Way

"Our whole Copeland force in New York admires your wonderful little paper, but now they wonder why you omitted us in the list of exhibitors at the Own-Your-Home Show in New York?

"Apparently we were among the missing, and incidentally even our competitors admit that Copeland had the finest exhibit in the Garden; but perhaps your reporter missed our name because our booth was so crowded at all times that the wonderful Copeland line could not be seen by a pas-

"We only ask that in the future Copeland be allowed to shine in the bright rays of your articles wherever possible, and increase of 2,500 over the previous year, and more than 32 per cent were accepted. when in New York, to visit one of the nicest electrical refrigeration show-rooms in the country; not from size, but from its appeal to the women buyers."—Copeland Refrigeration Co. of New York, Inc., Farnum Fox, President.

"We Heartily Recommend It"

ELECTRIC REFRIGERATION NEWS of February 2, 1927, announces the enrollment of its first thousand paid subscribers. The Advertisers' Weekly is delighted to extend its congratulations and best wishes for continued success to a publication as interestingly and intelligently edited as Electric Refrigeration News. Like *The Advertisers' Weekly* in the field of general advertising, it offers valuable and elsewhere unduplicated information to the electric refrigeration field, and also like The Advertisers' Weekly, it is set-up in easy, readable newspaper style. We heartily recommend it to any of our readers who may be interested in electric refrigeration.

Advises All Dealers to Subscribe

"Your paper well merits all the nice things that have been said about it. Personally I cannot get my copy fast enough. I am advising all my dealers to subscribe to it, as the most helpful periodical in the electric refrigeration industry."—J. E. McCauley, Ice-Berg Co. of New England, Boston, Mass.

Mr. Driggs Found

Our appeal for the address of H. E. Driggs, broadcast in the March 16th issue, brought immediate results. Mr. Driggs is connected with Polaris Electric Refrigerator Company, Logansport, Ind.

NEW BOOKLETS AND LEAFLETS RECEIVED

From Rice Products, Inc., 100 East 42nd Street, New York, a three-color folder (3½ x 7½), entitled "Twenty-five Years of Knowing How, Gives You the Refrigerator of the Future-Today.

Gloekler

Bernard Gloekler Company, 1627 Penn Avenue, Pittsburgh, Pa., has issued catalogue No. 81 ($8\frac{1}{2}$ x 11), containing 50 pages of illustrations and descriptions of the various types of Gloekler refrigerators. The catalogue is a direct-mail order book.

Thesco

C. Schmidt Company, Cincinnati, Ohio, sends a 52-page, two-color illustrated catalogue of "Thesco" refrigerators and store products.

Electro-Kold

Electro-Kold Corp., Spokane, Wash., issues a two-color folder (4 x 9½), entitled "Multiple Control for Apartment

Vogt Refrigerator Company, Louisville, Ky., offers the following folders: "Solve Refrigerator Problems!"

"At Last! The Perfect Refrigerator-Seven Out of Ten Women Picked the

Sliding Drawer."
"M-5-S Vogt's Metal Cabinet Refrigerator" (Also folders for M-7-S and M-7-D).

Ice Maid

The Refrigerator Division of the Lamson Company, Syracuse, N. Y., has recently issued an attractive booklet, "The Magic of Frost Crystals (7½ x 10½), containing 24 pages outlining the development, uses and needs for electric refrigeration. The booklet is profusely illustrated, showing the operation of the "Ice Maid," and also contains recipes for frozen

Capacity Insures Prompt Service—tubing in lengths or formed to your order. Write for Prices igths or formed to your order. Write for Pric WOLVERINE TUBE COMPANY 1431 Central Ave., Detroit, Mich



CLASSIFIED COLUMN

Note: Replies to advertisements with "box numbers" should be addressed to Electric Refrigeration News, 409 E. Jefferson Avenue, Detroit, Michigan. Advertising rates for this column only: Positions wanted 40 cents per line for one insertion, \$1.00 per line for three insertions. All other classifications, 50 cents per line for one insertion, \$1.25 per line for three insertions.

POSITIONS WANTED

Sales executive, fifteen years experience in sales, sales promotion, sales management. Two years field supervisor in electrical refrigeration with excellent record. Age 35 years. At present employed. Open for position as branch manager, salesman or sales executive. Address Box 21.

Three years' experience as salesman and dealer in domestic and commercial electric refrigeration fields qualifies me for responsible position in factory sales organization or branch office.

Married. Address Box 23.

Experienced as dealer and manager of commercial electric refrigeration department. Seeks permanent connection in sales office at branch office or in factory. Married. Address Box 24,

ASSISTANT ENGINEER WANTED

Manufacturers of high grade electric refrigerator cabinets need refrigerating engineer with some designing and production experience to be assistant to chief engineer. Salary dependent upon experience and qualifications. tunity for right man. Address Box 27.

Have developed and patented small commercial and domestic refrigerating machine, two sizes. Sixty machines sold and running satisfactorily. Machine has outstanding advantages. Ready for active exploitation. Favorable costs, prices and demand established. Suitable manufacturing connections needed with at least partial financing. Address Box 25.

MACHINE FOR SALE

A small ammonia compressor type refrigerating unit of approximately 500 pounds capacity, with equipment of patterns, dies, jigs, etc., to put the unit into immediate production. A number of installations has been in successful operation for the past two years. Machine simple, noiseless and shows a low manufacturing cost. Address Box 26.

for Domestic and Commercial Electric Refrigeration

Testing and experimental laboratory service for manufacturer, distributor, central station
Test data exclusive property of client

ELECTRICAL TESTING LABORATORIES 80th Street and East End Avenue, NEW YORK CITY, N. Y.

REFRIGERATION STAMPINGS

We Specialize in the Design and Manufacture of

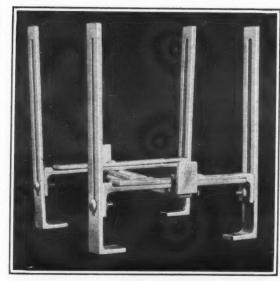
ICE CREAM CABINETS

We make them complete or furnish parts separately Brine Tanks Cooling Units Unit Supporting Bases and Perforated Metal Covers METAL HOUSEHOLD REFRIGERATORS (Complete) OR CAN FURNISH OUTSIDE STEEL PANELS, INSIDE LININGS, LOUVERED PANELS, LEGS, ETC., SEPARATELY

We Have a Competent Engineering Staff to Help You . . We Solicit Your Inquiries and Specifications

MOTORS METAL MFG. CO. - DETROIT MICHIGAN

ADJUSTABLE TIME-SAVER EFFICIENT MONEY-SAVER



Rust-Proof

Made of solid

Universal

Fits all sizes and types of tanks and Refrigerators

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A-T-E-M UNIVERSAL STAND

Solves the problem of tank installations. ONE MODEL for EVERY JOB. Makes a good looking, permanently rust proof job. Saves Time, Trouble and Money.

Write for Prices and Discounts

A-T-E-M UNIVERSAL STAND COMPANY OZONE PARK, L. I., N. Y.